DOCUMENT RESUME

ED 419 639 RC 021 500

AUTHOR	Sherman, Lee, Ed.; Kneidek, Tony, Ed.
TITLE	Northwest Education, Volume 3.
INSTITUTION	Northwest Regional Educational Lab., Portland, OR.
SPONS AGENCY	Department of Education, Washington, DC.
PUB DATE	1998-00-00
NOTE	177p.; Contains photographs and a few colored pages that may not reproduce adequately. For descriptions of individual articles, see RC 512 507-520, RC 512 583-586, and RC 512 619-623. For volumes 1-2, see ED 417 878.
CONTRACT	RJ96006501
AVAILABLE FROM	World Wide Web: http://www.nwrel.org/nwedu/
PUB TYPE	Collected Works - Serials (022)
JOURNAL CIT	Northwest Education; v3 n1-4 Fall-Sum 1997-1998
EDRS PRICE	MF01/PC08 Plus Postage.
DESCRIPTORS	Computer Literacy; *Computer Uses in Education; *Educational Practices; Educational Strategies; Educational Trends; Elementary Secondary Education; Family School Relationship; *Gifted; *Nontraditional Education; *Parent Participation; Professional Development; Special Education
IDENTIFIERS	*United States (Northwest)

ABSTRACT

Volume 3 of "Northwest Education" contains four issues. Each issue has a theme title and typically consists of an opening review article on current trends and research related to the theme, followed by articles on exemplary schools or programs in the Northwest, promising practices, outstanding teachers, or suggestions for program implementation or staff development. Theme issue titles are: (1) "Growing Up Gifted: The Challenge of High-Ability Students"; (2) "Advocating for Children"; (3) "Taking Off: A Teacher's Guide to Technology"; and (4) "Alternative Schools: Caring for Kids on the Edge." Issues also include book and software reviews; availability of teacher resources; guidelines for teachers, parents, and communities; letters to the editor; and teacher commentary. (SV)

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The Challenge of High-Ability Students

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NORTHWEST REGIONAL EDUCATIONAL LABORATORY
FALL 1997

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VOLUME 3 NUMBER 1

FALL 1997

THIS ISSUE

Growing Up Gifted

2 **C**uriouser & Curiouser

10 **C**larion Call to Action

20 **B**right Lights

30 **C**utting Loose

DEPARTMENTS:

32 **R**esearch Review

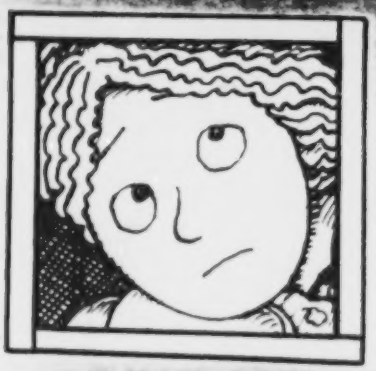
35 **W**hat Works

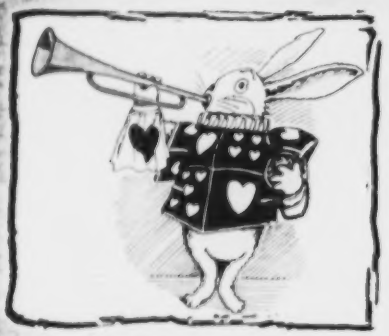
36 **F**irst Person

38 **G**lossary

39 **L**etters

40 **D**irector's Note





COVER ILLUSTRATION: FOURTEEN-YEAR-OLD JUNG-YOON CHANG, A STUDENT AT OREGON'S LAKE OSWEGO JUNIOR HIGH SCHOOL, CREATED THE COVER ILLUSTRATION "PARADISE LOST." IN A FANTASY DRAWING CLASS OFFERED THROUGH THE CHILDREN AND YOUNG ADULT PROGRAM OF THE PACIFIC NORTHWEST COLLEGE OF ART.

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The "Quiet Crisis"

THE EDUCATIONAL NEEDS OF GIFTED STUDENTS TOO OFTEN GO UNMET

At dinner one night I mentioned our upcoming magazine on education for the gifted and talented. "Oh, yeah," my 10-year-old stepson Daniel piped up. "Those are the kids who get to go on lots more field trips than anyone else." The whine in his voice and the pout on his face made it clear how he felt about "those kids" and their extra field trips.

Daniel's reaction raises some important questions—questions that researchers, educators, and policymakers have struggled with since Sputnik prompted the first national push to find and cultivate bright minds. Is it fair, for instance, to enrich the schooling of certain students? How were those particular kids singled out for special treatment? Do field trips really meet the needs of a math whiz or music prodigy?

Historically, gifted children have been pulled back and forth in a philosophical tug-of-war that is uniquely American. As a nation, we admire inventors and innovators. At the same time, superior intellect makes us uncomfortable. Equality is the bedrock of our national identity, and we are suspicious of anything that looks like elitism. Support for gifted education, as a consequence, waxes and wanes like the cycles of the moon.

Add to this philosophical dilemma the current push in educational reform toward keeping all kids in the same classroom. To avoid stigmatizing or isolating children, schools are moving away from pull-out programs that target special groups. Gifted students typically have been served—when they have been served—in separate enrichment programs. Folding gifted education into the fabric of the regular classroom often means gifted kids are forgotten, critics of the inclusion movement charge. Research has found that when their needs are neglected, gifted students can suffer from boredom and frustration. They may act out—or drop out. Their talents may be lost to them and to the nation.

In this issue, we take a look at what has been called the "quiet crisis" in gifted education. We present an overview of key issues in the field, with a sampling of research findings and recommendations on finding and serving bright students. We review the research on identifying gifted minority and disadvantaged children, often overlooked in programs for the gifted. We describe how Oregon's two largest districts are dealing with parents' complaints about programs for the gifted. And we offer a sampling of innovative approaches, along with student profiles, from around the Northwest.

—Lee Sherman

Curiouser & Curiouser

Many gifted students have an "Alice in Wonderland" experience in school where they often feel hemmed in and out of place

By **LEE SHERMAN**

KENNY HIGDON

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"...there's no room to grow up any more here."
Alice's Adventures in Wonderland
Lewis Carroll

Children who can paint like young O'Keeffes or dance like budding Baryshnikovs who can interpret Shakespeare in fifth grade or write love sonnets in sixth who can calculate the environmental impact of chlorofluorocarbons or build a computer model of a lunar land rover too often find themselves bumping against the ceiling at school. Gifted children in America tend to be wedged in by a pace that's too slow and a curriculum that's too narrow for their quick minds and abundant abilities. Their experience is not unlike that of Lewis Carroll's Alice, who runs out of room and annoys her companions when she expands like the largest telescope that ever was during her adventures in Wonderland.

"I wish you wouldn't squeeze so," said the Dormouse, who was sitting next to her.

"I can't help it," said Alice meekly. "I'm growing."

"You've no right to grow here," said the Dormouse.

"Don't talk nonsense," said Alice more boldly. "You know you're growing too."

"Yes, but I grow at a reasonable pace," said the Dormouse, "not in that ridiculous fashion."

Rapid intellectual growth is one characteristic common to gifted kids, who typically know 35 per cent to 50 percent of the curriculum before they ever enter class, according to a 1994 U.S. Department of Education report, *National Excellence: A Case for Developing America's Talent*. In another publication, *Guiding the Gifted Child*, James Webb and colleagues report that gifted elementary students often have one fourth to one half of their class time left over after they gallop through their work. For exceptionally gifted kids, leftover time may amount to three fourths of the school day.

Large-scale studies over the past 80 years consistently agree that these individuals function at levels far in advance of their agemates. U.S. Commissioner of Education Sidney Marland Jr. asserted in a landmark report to Congress in 1971: Gifted kindergartners perform like second graders, said the *Marland Report*. By fourth and fifth grades, gifted children have outpaced the average seventh grader. Gifted high school seniors, as a group, score higher on the Graduate Record Exam than college seniors.

Besides grasping information fast and zooming through classwork, gifted students have a "rich memory storehouse, intense curiosity, reflectivity, and openness to experiences," writes LeoNora Cohen in *Teaching Gifted Kindergarten and Primary Children in the Regular Classroom*, a 1990 report from the Oregon School Study Council. Cohen goes on to say that such children typically can generalize, think abstractly, and discover relationships in information. They can manipulate symbols and symbol systems. They pursue interests with tenacity and intensity.

But while gifted children share certain traits, they can't be lumped together, experts warn. Just as their gifts range from rocket science to opera, their emotional and educational needs diverge widely. Writing in *Gifted Child Quarterly* in 1988, G. Betts and M. Neihart identify six subtypes of gifted students.

- The *successful gifted* who conform and achieve, but who may be too perfectionistic and lacking in risk-taking behavior.
- The *challenging gifted* who are creative, bored, and rebellious and may need assistance in becoming self-controlled and committed to the group.
- The *underground gifted* whose shyness and poor self-concept may keep them from surfacing as part of the gifted population.
- The *gifted dropouts* who may be angry, explosive, and burned out in the school situation.
- The *double-labeled* who are both disabled and gifted, but who may be overlooked except for their handicap.
- The *autonomous gifted* who are enthusiastic achievers, have a good sense of self, are intrinsically motivated, and psychologically healthy.

The message behind this list is twofold. First, gifted students vary one from another as much as average or struggling students do. Second, despite their gifts — or sometimes because of them — many bright and talented students are at risk of underachievement and school failure without the right support and intervention. Schools have the power, research suggests, to steer gifted kids toward fruitful, fulfilling lives — toward becoming the autonomous gifted — by developing programs that allow them (and all children) to reach their full potential.

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Efforts to meet the needs of talented and gifted students face obstacles both philosophical and pragmatic. They endure charges of elitism. Assaults from anti-tracking forces. Blows from budget axes whenever funds get scarce.

Beneath it all lurks Americans' ambivalence toward brains. On one hand, we admire smart people. Heroic doctors and lawyers have been the subjects of countless hit movies and TV series, from Perry Mason to *M*A*S*H*. But scientists and professors often are portrayed in popular media as mad or absent-minded. These stereotypes spill over into schoolrooms. "In America we often make fun of our brightest students, giving them such derogatory names as nerd, dweeb, or, in a former day, egghead," observes the *National Excellence* report. "We have conflicting feelings about people who are smart, and we give conflicting signals to our children about how hard they should work to be smart."

As a culture, our true heroes aren't the brainy. They're the buff, the brave, and the beautiful—the Michael Jordans, Batmans, and Marilyn Monroes of screen and legend. More kids have heard of Mickey Mantle than of Jonas Salk. Wyatt Earp captures our imagination more fully than Thomas Edison. Entrepreneurs and inventors, from Henry Ford to Bill Gates, earn our respect as much for fueling our collective wealth as for contributing new ideas. Visual artists (as well as performing artists outside the mainstream of pop, rock, and Hollywood) rarely gain wide recognition, and often come under attack for work that challenges convention. Witness recent congressional efforts to dismantle the National Endowment for the Arts.

"It seems rooted in one of the unhappy corners of our nature to spurn those whose excellence is intellectual or creative," notes Carol Ann Tomlinson of the University of Virginia.

Uneasiness with mental or artistic brilliance grows from America's history. Democracy (which embraces equality) butts heads with intellectualism (which suggests elitism), many observers have noted. As a nation, we bristle at anything that has the scent of superiority.

At bottom, it's the "equity versus excellence" debate, and the literature on gifted education is full of it. Tomlinson describes the clash of competing ideals. "While we pay homage to excellence by understanding that much of our greatness as a nation has stemmed from encouraging ingenious individuals to develop their abilities and the fruits of those abilities," she writes, "we are also shaped as a nation by the refrain that all men are created equal. We find it difficult to attend simultaneously to the voices of equity and excellence."

This dilemma shows in the federal record. Initiatives on behalf of high-ability students flicker on and off like fireflies on a warm summer night. Interest first sparked 40 years ago when the Soviets launched Sputnik. U.S. fears of Soviet superiority in science and technology spurred Congress to earmark money for cultivating talent in math and science. Funding dwindled, however, as emphasis in education shifted to equity in the 1960s.

The *Marland Report*, which took the first indepth, nationwide look at America's brightest students and the schooling they receive, rekindled interest. Published in 1972, the report was blunt in its findings. "Educators, legislators, and parents have long puzzled over the problem of educating gifted students in a public education program geared primarily to a philosophy of egalitarianism," the report begins. "Disturbingly, research has confirmed that many talented children perform far below their intellectual potential. We are increasingly being stripped of the comfortable notion that a bright mind will make its own way. Intellectual and creative talent cannot survive educational neglect and apathy."

Marland points to the glaring absence of minority and disadvantaged children in many gifted programs. Perhaps most troubling of all was the finding that nearly 60 percent of schools polled for a national survey said they had no gifted pupils. The statistic, which the report calls "depressing," may be attributable, the author speculates, to "widespread ignorance, apathy, and indifference, or outright hostility toward the notion that gifted and talented young people merit attention to their needs."

An Office of Gifted and Talented was created in the U.S. Education Department in 1974, only to shut down a few years later. The office was resurrected in 1988 under the Jacob K. Javits Gifted and Talented Students Education Act, which also established the National Research Center on the Gifted and Talented and created training and demonstration grants for local programs. Picking up on *Marland*'s indictment of the ethnic and socioeconomic imbalance in gifted programs, the Javits Act stressed "the discovery and stimulation of underserved and undiscov-

"Just at that moment Alice felt a very curious sensation, which puzzled her a good deal until she made out what it was: she was beginning to grow larger again, and she thought at first she would get up and leave . . . but on second thought, she decided to remain where she was as long as there was room for her."

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ered gifted students," in the words of researcher James Gallagher. Then, in 1994—nearly two decades after the *Marland Report*—the Education Department issued a second major report on the state of gifted education. *National Excellence: A Case for Developing America's Talent* records gains in gifted education, noting that in place of the few scattered programs that existed in the '70s, programs for the gifted had taken root across the nation. But the main message is hauntingly similar to the message of the earlier study. *National Excellence* points to a "quiet crisis" in education for the gifted.

"The United States is squandering one of its most precious resources—the gifts, talents, and high interests of many of its students," the report asserts. "In a broad range of intellectual and artistic endeavors, these youngsters are not challenged to do their best work." And, once again echoing the *Marland Report*, it charges schools with failing to find and serve gifted students from poor families and minority communities (see the "Research Review" on Page 32 for a discussion of serving gifted poor and minority students). Overlooked as well are students with "unorthodox talents," such as musical and artistic abilities that go beyond the traditional focus on intellectual and academic gifts, the report asserts.

Twenty years ago, only seven states had legislation and funding for talented and gifted programs. By 1993, all 50 states had policies in the form of legislation, regulations, rules, or guidelines that supported the education of gifted and talented students, Harry Passow and Rose Rudnitski found in a study for the National Research Center on the Gifted and Talented. State policies are a mixed bag, with some glaring inconsistencies. For example, some states mandate services, but provide no funding, the researchers note in *State Policies Regarding Education of the Gifted as Reflected in Legislation and Regulation*. Other states have no mandate, but provide funding.

While state mandates clearly strengthen the position of gifted education programs, they do not inoculate gifted programs against fiscal or philosophical constraints. "It has long been argued by advocates that a state mandate is needed if programs for the gifted are to thrive, but the situation does not appear to be that simple," write Passow and Rudnitski. "Many states have policy statements dealing with the gifted, but these seemed to collapse as soon as there were pressures to place educational priorities and resources elsewhere."

Among the Northwest states, Alaska, Idaho, Montana, and Oregon have state mandates for gifted education, but not all provide state funds. Washington, on the other hand, has no mandate, yet it allocates money. Here's a look at gifted education policies in the Northwest states as reported in the *1996 State of the States Gifted and Talented Education Report* from the Council of State Directors of Programs for the Gifted:

Alaska: Alaska has a mandate for identification and programming through state law. More than $8 million in funding was provided for 1995-96. Districts are required to use the state definition of gifted and talented, but are not required to follow the same identification procedures statewide. Programming services are mandated pre-K through grade 12; most services are provided through a formal gifted and talented program approved by the education department. A professional endorsement in gifted and talented education is offered and required for teachers (six credits are required for endorsement).

Idaho: Idaho has a state mandate for both identification and programming through state law. However, there is no state funding for local programs. Only a consultant position is funded through the general fund. There is a state definition, which districts are required to use. But districts are not required to follow the same identification guidelines or process statewide. Programming services are mandated for K-12, using a combination of formal gifted-and-talented and regular-classroom programs. The state monitors district programs, and programs are accountable. There is a professional endorsement in gifted education, which requires 12 hours of training. Special training or endorsement is required for teachers working with gifted kids. The state funds a gifted-education professional at the regional, intermediate, and district levels to provide support to school-based educators.

Montana: The state mandates identification and programming through administrative rule. About $150,000 per year for the past several years has been allocated to gifted-education services. Dollars go to districts through discretionary funds based on application. There is a state definition of gifted and talented and a mandate for identification, but districts aren't required to use the state definition for identification or to follow uniform procedures.

" 'Oh, you foolish Alice!' she answered herself. 'How can you learn lessons here? Why, there's hardly room for you, and no room at all for any lesson books.' "

Programming services are mandated for K-12, using a combination of formal gifted program and classroom programs. The state doesn't monitor programs, but local programs that are grant recipients are required to report on gifted education through state accountability procedures. There is no professional endorsement in gifted education, and no special training is required for teachers to work with gifted students.

Oregon: Oregon has a mandate for both identification and programming through state law. There are no state funds allocated specifically for gifted education, but $100,000 annually has been appropriated for inservice training through school-university partnerships (see sidebar on Page 15 for details). Programming services are mandated for K-12, with a combination of formal gifted programs and classroom programs. The state monitors program plans and annual enrollment, and local agencies are required to report on gifted education through state accountability procedures. There is no professional endorsement in gifted education, and no special training or endorsement is required to work with gifted kids.

Washington: Washington has no state mandate for programming or identification in either law or rule. However, the state allocates funds specifically for gifted-education services. Funds dropped from nearly $4.5 million in 1994-95 to less than $4.3 million in 1995-96. But State Representative Jim Clements recently spearheaded a $2.5 million increase in gifted education for the next biennium. Discretionary funds go to districts based on application. While there is a state definition of giftedness, there is no mandate for identification. The state monitors the number of students served. There is no professional endorsement in gifted education offered, and no special training or endorsement is required for working with gifted kids.

Nationally, state directors of gifted programs say anti-ability grouping sentiment is the most potent force affecting the delivery of gifted education services. Ability grouping ranks "among the most divisive areas in American education," notes educational consultant Mark Stevens in a 1992 report to the Ohio Department of Education.

Opposition to grouping kids by ability stems from studies showing that single-ability groups can harm average and below-average learners. These findings have fed into reform efforts that stress cooperative, mixed-ability learning groups, especially for middle schoolers. The movement toward inclusion—keeping kids together in the regular classroom—began in the 1970s, about the same time as middle school reform. That's when special education began merging with mainstream education. Federal programs that once pulled out special student populations—kids with limited English skills, migrant children, disadvantaged students, American Indian children—now encourage schoolwide reform efforts that serve diverse learners in a common setting.

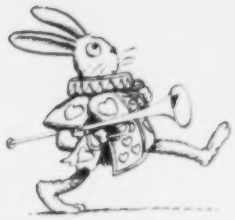
While most advocates for gifted students agree that super-smart kids can and should be served in the mainstream, many argue that the total elimination of ability groups hurts top students who clearly benefit from spending some class time with their intellectual peers.

"Research has documented the benefits of grouping gifted students for instruction," asserts Patricia Bruce Mitchell in *State Policy Issues in the Education of Gifted and Talented Students* published by the U.S. Education Department in 1994. "The research findings on the negative effects of grouping low-ability students should not be allowed to cancel out the positive effects of grouping gifted students."

Ability groups are harmful, research has shown, when they crystallize into rigid, full-time placements—or "tracks"—for minority, disadvantaged, or struggling students. Tracking has largely been discredited as a valid approach. But there *is* a place for ability groups, most gifted-education advocates say. Flexible grouping—in which groups are sometimes mixed, sometimes not—allows teachers to match kids up to meet changing educational needs and goals.

"Cooperative learning is designed to be used with either homogeneous or heterogeneous groups," says Donna Harrington-Lueker, writing in the *Executive Educator* in November 1991. "What seems reasonable is to allow teachers the flexibility to determine which lessons lend themselves to heterogeneous cooperative learning groups and which to homogeneous learning groups and make professional decisions to place students accordingly."

Along with flexible grouping, flexible pacing is anoth-



er strategy for staving off boredom for rapid learners. In a 1988 publication from the Council for Exceptional Children, N. Daniel and J. Cox define flexible pacing as "any provision that places students at an appropriate instructional level, creating the best possible match between students' achievement and instruction, and allows them to move forward in the curriculum as they achieve mastery of content and skills." In short, students learn at their own pace. Daniel and Cox tout the power of the approach in uncompromising terms. "Flexible pacing is the best way of providing for the varied instructional levels and accelerated rates of learning common to gifted students," they say.

In-class strategies such as flexible pacing and flexible grouping are necessary because, as LeoNora Cohen says, "A pull-out program for a few hours a week will not be sufficient. . .because gifted children are gifted all the time, and their instruction in basic subject areas must be modified to meet their learning needs."

Cohen, like many gifted educators, believes that "although intellectually and academically gifted children will go farther, faster, and with a higher level of mastery. . .the basic principles used in educating gifted and talented children are sound educational principles for educating all children." She and colleagues Ann Burgess and Tara Busick offer five rules for planning appropriate gifted programs. Each rule is paired with a corresponding rule for all children (examples are the authors' in their words):

1. Gifted children should be viewed not as "The Gifted," but as individuals, each of whom has a unique pattern of abilities and interests that need to be nurtured. *(All children should be viewed as individuals with gifts and interests to be found and nurtured, not just as having deficiencies.)*

2. Gifted children should spend at least part of their time with others like them by ability and/or by interest. This avoids the serious social-emotional problems of isolation and feeling different that plague gifted children. *(All children should have the chance to interact with others of their choice. Such interactions are crucial to learning and instrumental in becoming cooperative citizens.)*

3. Gifted children should work in basic skill areas such as reading and math to their level of ability. That is, they should move as fast and as far as they are able. Boredom and unchallenging work begets cycles of frustration and puts gifted children at risk for dropping out, just as work that is too difficult causes other children of lesser ability to drop out. If a basal reading series is used, at least two series (or alternatives) should be available to allow for this form of natural acceleration. *(All children should be allowed to work at their level of ability.)*

4. Gifted children should be allowed to investigate indepth areas in which they are greatly interested and should be encouraged to become producers of new information, rather than consuming what others have done. Rather than writing a research paper on cats, for example, a fourth-grader might keep a careful log for six weeks of the development of her cat's litter of kittens. Each day she might note the weight, behaviors, temperament, and eating habits of each kitten. She will learn infinitely more from such an experience, she will need to read about cats and kittens for a background to help her decide what to observe, and she will add something new to the field about her cat's kittens. *(All children should have the opportunity to engage deeply in areas of great interest and to develop a sense of competence.)*

5. To optimize their potential, gifted children need counseling and guidance, whether from a counselor or from supportive, caring teachers. *(All children need to have counseling and facilitation to maximize their potential.)*

A theme raised by Cohen and repeated throughout the literature on gifted education is the need to make adaptations for able learners. Gifted-education specialists are in agreement that "one size does *not* fit all"—not all children, nor even all gifted children. In a 1994 report for the U.S. Education Department, James Gallagher pinpoints three major areas where adaptations can and should be made to challenge and motivate bright children: the learning environment, curriculum content, and skills mastery.

In the learning environment, gifted students need to be placed with pupils of similar ability so that instruction "can be pitched at the appropriate level" and students "can stimulate each other," Gallagher says. Cluster grouping—the strategy of placing high achievers in one classroom with a teacher trained in gifted education—has proven to be a powerful boost to achievement, according to researchers (see sidebar on Page 9). The other key feature of an appropriate learning environment, he says, is competent staff "who can continually challenge" bright students.

Gallagher is firm on one point: Changes in the learning environment by themselves, without corresponding changes to the curriculum, "do not yield impressive gains." Such changes "seem nonproductive and lead to the clarion call of many gifted students that 'school is boring,'" he says. Gallagher offers four major ways in which content can be modified (or "differentiated," as many experts term the approach) to meet the needs of gifted students:

• **Content acceleration:** The presentation to gifted students of curricula that were intended for older students—teaching algebra and geometry to elementary students, for example. [Gallagher notes that students, as well as content, may be accelerated—that is, moved more rapidly through the school program. The "virtues and dangers" of acceleration "have been debated for six decades," he notes. "The available literature on this topic reports strongly favorable outcomes of student acceleration," he asserts. "It appears that many of the fears (of negative consequences) are unfounded in the majority of cases."]

• **Content enrichment:** Extra lessons or assignments used to elaborate the student's richness of understanding of existing curriculum goals. The gifted child is kept mainly in the regular classroom, and content enrichment is used to extend the regular program. While the rest of the class is studying the Western Movement across the early United States, for example, the gifted student could be doing a project on diaries of wagon-train members or the special perspective of American Indians on the influx of settlers. Content enrichment gives gifted students material designed to broaden their understanding within the general educational goals.

• **Content sophistication:** Attempts to challenge gifted students to learn complex and sophisticated information from the curriculum that the average student might not be able to master. This approach works best in special-class or resource-room settings where the teacher can instruct a group of gifted students at a higher level without fear of leaving other, less rapidly developing students behind. For example, a unit might focus on a new system of ideas such as the physics of chaos and what the implications of these ideas might be—a subject that would require a wealth of prior knowledge, which gifted students may have but other students may not have.

• **Content novelty:** Content not covered in traditional school curricula. Examples are topics focusing on cross-disciplinary areas, such as the impact of technology on American society or the demographics of poverty. Topics such as this have special meaning for gifted students, who typically like to tie apparently unrelated facts together. It is important for gifted students to reflect on the linkage between bodies of knowledge so that they are aware of the potential impact of one field on another...and reflect on what might be done to forestall possible negative consequences.

Finally, skills mastery refers to providing cognitive skills, such as creative problem solving, that increase the ability of gifted students to think productively.

Creative problem solving, flexible grouping, and other instructional strategies get their power from the teachers who use them. "The success of good instruction for the gifted depends on the quality of the teacher, whose chief roles are facilitator and manager," Cohen says. "A good teacher of the gifted organizes resources for children; provides exposure to new ideas and opportunities for exploration; tunes in to children's interests and questions; stretches, rather than stresses; uses negotiation and contracts; provokes inquiry; advocates for children; empowers children."

Training for general-education teachers in how to serve gifted students is the field's biggest need nationwide, state-level gifted education directors say. In all the Northwest states, fewer than 10 percent of teachers have three or more semester hours (or the equivalent) in gifted education, according to the *1996 State of the States* report. States or colleges that require any specific coursework on the gifted are scarce, Cohen reports. In a national survey of teachers of grades three and four, more than 60 percent of the public school teachers polled said they had no training in gifted education, the National Research Center on the Gifted and Talented reported in 1993.

These figures help explain the finding that "most regular classroom teachers make few, if any, provisions for talented students," as reported in *National Excellence*. "The vast majority of talented students spend most of the school day in a regular classroom where little is done to adapt the curriculum to their special learning needs.... From kindergarten through high school, the education available to talented students is largely insufficient

"... Alice thought to herself, 'I wonder what they will do ... the roof off.'"

Cluster Grouping

Cluster grouping means assigning gifted students at a grade level to one classroom with a teacher who has special training in how to teach gifted students. The rest of the students in the class are of mixed ability. Curriculum is differentiated. Here are some findings on clustering:

- "Research indicates three major benefits exist to cluster grouping. First, gifted students interact with their intellectual peers. . .as well as their age peers on a regular basis. Second, cluster grouping provides services for gifted students without additional cost to the school district. Third, recent research has demonstrated that cluster grouping facilitates ongoing programming for gifted or high achieving students in the regular classroom." —Marcia Gentry, *National Research Center on the Gifted and Talented (NRC/GT) Newsletter*, Spring 1996
- "Through cluster grouping the intellectual, social, and emotional needs of the gifted students can be addressed." —Patricia Schuler, *NRC/GT Newsletter*, Winter 1997
- "The research finding that having more than five gifted students in the classroom results in more challenges and choices being provided to both gifted and average students is particularly intriguing. This suggests that the 'cluster model' in gifted education has noteworthy outcomes." —Scott Brown, Francis Archambault Jr., Wanli Zhang, and Karen Westberg, *NRC/GT Newsletter*, Spring 1995
- "Grouping of gifted and talented students. . .as a cluster group in a regular heterogeneous classroom (with differentiated curriculum and instruction) leads to higher academic achievement and better attitudes for the gifted." —Ellen Fiedler, Richard Lange, Susan Winebrenner, *Roeper Review*, September 1993
- A study of the effects of cluster grouping in a small, rural, Midwest school district found that "during the three years that students were involved in the cluster grouping program, their achievement increased significantly when compared to similar students from a school district that did not use cluster grouping." —Marcia Gentry, *NRC/GT Newsletter*, Spring 1996

because most schools have not been committed to addressing their needs seriously."

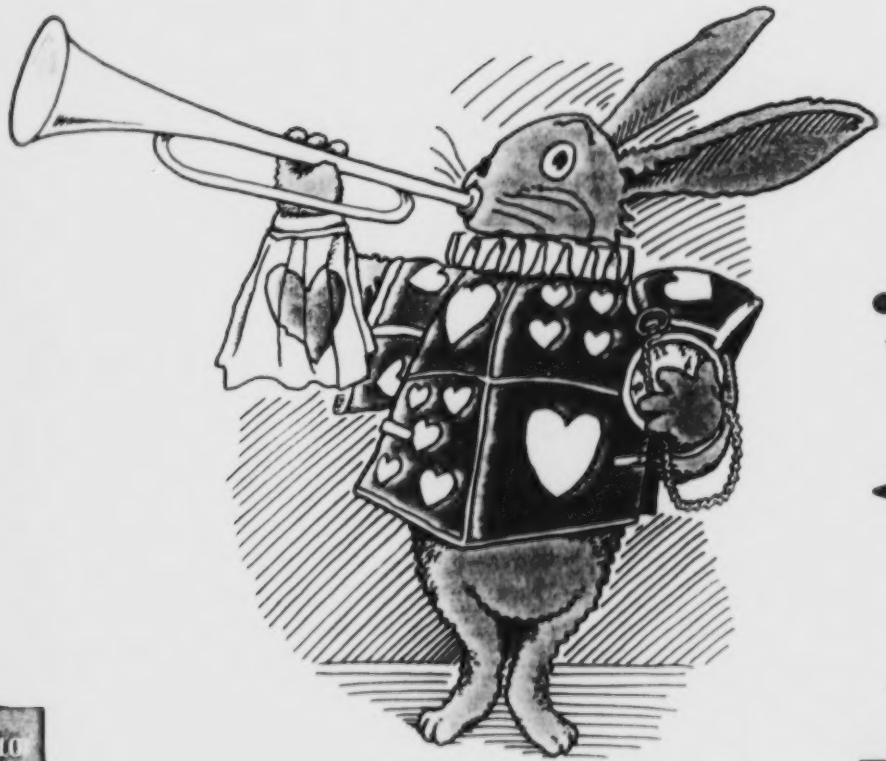
Funding is the other big challenge in gifted education. In one national survey, only two cents out of every $100 spent on K-12 education in the United States in 1990 supported special opportunities for gifted and talented students. Together, the staffing and funding shortfalls create a yawning gap between needs and services for gifted kids. "Even where there are legal or administrative mandates for providing services," write Webb and colleagues in *Guiding the Gifted Child*, "the lack of trained personnel and funds cause programs for the gifted to be miniscule."

The common assumption that bright or brilliant students will shine without any special help is not borne out in the research. Several studies have shown that for more than half of the nation's gifted students, school achievement fails to match their abilities. One study cited in the *Marland Report* found that most gifted students were working at least four grades below that at which they could be working.

Equity and excellence in education need not be mutually exclusive, many commentators have observed. Instead, they can and should exist side by side in the nation's classrooms.

"Equality in education does not require that all students have exactly the same experiences," write Ellen Fiedler, Richard Lange, and Susan Winebrenner in the *Roeper Review*, September 1993. "Rather, education in a democracy promises that everyone will have an equal opportunity to actualize their potential, to learn as much as they can."

Without these opportunities, the gifts and talents of many students will be lost to them and to the nation. Like Alice, scrunched into a Wonderland room too small for her quickly growing body, gifted students will be confined to classrooms that fail to serve their educational needs, thereby stunting their promise. Says Tomlinson: "When students stand for extended times in spaces with ceilings of expectation that are too low, the students' capacity is bent, misshapen, and malformed, exactly as their bodies would be if encased in physical spaces with ceilings too short for their stature."



Clarion Call to Action

Parents' complaints spur Oregon districts to reexamine and revamp TAG programs

By **MELISSA STEINEGER**

"That students differ may be inconvenient, but it is inescapable. Adapting to that diversity is the inevitable price of high standards and fairness to the students."
—Theodore Sizer

"Wasting the potential of a gifted mind is reckless for a society in desperate need of creativity and inventiveness."
—Carl Rogers

In the fourth grade, Hannah Grubb and her classmates unearthed archaeological "ruins" created by gifted students at other elementary buildings, and then recreated the history, language, and customs of the "lost civilizations." As a sixth-grader, she streaked through problem-solving curricula in an all-gifted classroom.

But in 1991 Grubb's family moved to Salem, Oregon. There, the seventh-grader languished in classes that lagged behind her capacity for learning.

"I was completely bored," the McKay High School honors graduate recalls. "I'd done what they were doing in seventh grade when I was in fifth grade. I was miserable." Now a pre-med student at the University of Oregon's honors college, Grubb says the district's scant advanced-level offerings limited her chances for top-university scholarships.

Some 38,000 of Oregon's 500,000 students are identified as talented and gifted—defined in

state law as performing at or above the 97th percentile on general aptitude, math, or reading tests. Historically, schools often have neglected the needs of highly capable students like Hannah Grubb. Super-smart students don't need different treatment in school, many people assume. Kids with quick minds ought to be fine on their own, they reason.

But talented and gifted youngsters can suffer when schools fail to engage them, research shows. The boredom and frustration can turn them off and drive them away. And by overlooking the brightest minds, schools rob society of a priceless resource, advocates for the gifted argue. "Neglect of these students makes it impossible for Americans to compete in a global economy," asserts a recent report on gifted education from the U.S. Department of Education's Office of Educational Research and Improvement. The problem, notes the 1993 report, *National Excellence: A Case for Developing America's Talent*, is "especially severe among economically disadvantaged and minority students... whose talents often go unnoticed."

COMPLAINTS FILED

Armed with these and other findings, parents in Oregon's two largest districts recently have demanded better services for gifted children. Charging that schools are violating a state law requiring them to find and serve highly capable kids, parents in Salem and Portland have filed formal complaints against their districts—Salem three years ago and Portland last winter.

"The problem is that the school is making (a gifted child) sit in class learning the ABCs when he can already read and write," says Margaret DeLacy, one of the chief forces behind the Portland complaint and a member of the district advisory committee for gifted education. "We're involved because we see profoundly gifted kids being damaged by the school system. I watch those kids being hurt every day. It's like standing at a window watching someone get beat up."

The parents' charges came a decade after the state Legislature passed a law to ensure that Oregon's brightest youngsters are adequately challenged and nurtured. The Salem complaint and the investigation that followed offer lessons for other districts struggling to provide services while swimming against the twin currents of dwindling dollars and rising parent expectations.

Salem-Keizer School District—Oregon's second largest district with 32,000 students—encompasses the state capital where, in response to parent concerns, legislators in 1987 enacted a law to improve education for talented and gifted youngsters. The law, to be implemented by the 1991 school year, and the accompanying administrative rules require districts to:

- Identify gifted youngsters, making a special effort to find gifted students from ethnic minorities, culturally different backgrounds, and economically disadvantaged circumstances, as well as those with disabilities
- Provide instruction to the child at the appropriate rate and level of learning
- Assess and address the needs of each identified gifted child
- Allow parents to provide input on the gifted-education process as it affects their child

When the law passed, Salem took a long, hard look at what it was doing for talented and gifted kids. It found that it was doing very little.

Before the new law, the district had waited until third and fourth grades to identify exceptional students as measured by a standardized IQ test. In fifth and sixth grades, gifted kids had been pulled out of their regular classrooms just three or four days a year for activities that might have no relationship to the child's interests, abilities, or academic experience. After sixth grade, services to gifted students ended.

The district made big changes to meet the 1987 law. IQ tests alone were inadequate for finding bright kids, the law had decreed. So, under the revamped policy, all Salem-Keizer students in kindergarten through second grade would be screened through a "collage" of information—gathered from informal observations of parents and teachers as well as from

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formal assessment instruments—to gauge a child's abilities. In later grades, students would be screened through a combination of the Iowa Tests of Basic Skills, state assessment scores, and classroom-characteristic surveys. When a child showed promise, test scores would be combined with teacher input for review by a team of educators to decide if she qualified for gifted services. And there was room for discretion. A promising student whose scores didn't hit the 97th percentile still could be included in a gifted program if the team agreed he had the potential to perform at high levels.

Under the new identification process, the number of identified gifted kids mushroomed from 250 to 2,500—a whopping 10-fold increase.

Under the new plan, gifted students in Salem are supposed to get services from Day One through graduation. Teachers are taught how to assess the grade level and learning rate of their gifted students. Curriculum must be geared to meet gifted kids on their own level. To make sure that happens, the district spent three years training all its teachers on how to challenge high-ability kids during the regular school day. One teacher was named as an advocate for gifted kids in each building.

Changing the talented-and-gifted program to meet the law and provide more services to more kids had an unexpected effect: It made the program less visible, district officials lament. The old pull-out enrichment classes were visible and quantifiable. But when the district shifted its focus to embedding challenging instruction in day-to-day activities, gifted-education services were camouflaged. Behind such camouflage could hide either the presence or absence of services.

To a group of Salem parents, absence seemed to be the norm. Despite the district's efforts to improve gifted services, parents said the efforts were spotty, at best.

UNHAPPY PARENTS

One of the unhappy parents was Susann Kaltwasser, whose fourth-grade son was identified as intellectually gifted in the early 1980s. Two younger Kaltwasser children were later identified as gifted, as well. A former reading specialist who gave up teaching to be a full-time mom, Kaltwasser has been involved with gifted-education issues for more than a dozen years. She's served in leadership positions in various groups, including three years working for the Oregon Association of Talented and Gifted to educate parents on issues in gifted education—an endeavor funded by a federal Jacob Javits gifted-education grant through the Oregon Department of Education. She lobbied state legislators to pass the 1987 law. Currently, she operates the national TAG (talented and gifted) Parent Network, which offers a site and information exchange on the World Wide Web (http://www.teleport.com/~rkaltwas/tag).

From the parents' viewpoint, the district was failing its brightest students in two key respects: identification and services. Kaltwasser's group charged that the district was assessing youngsters inconsistently from school to school and from student to student. Identification methods were not spelled out and parents were not included, they claimed.

"Parents could ask the teacher to show what they were doing for their child, and the vast majority couldn't tell you," says Kaltwasser. "There was no way for you to know if *anything* was happening for your child."

After about two years of trying to work individually with teachers and schools, the parents approached the school board asking for establishment of a gifted-education committee to let parents work formally with the district. By February 1994, after what Kaltwasser describes as months of foot-dragging by the district, a dozen parents felt they had no choice but to file a formal class-action style complaint with the state Education Department. Their criticism of the district's program alleged:

- The district's policy discriminated against minority and low-income students in identifying gifted youngsters
- The district did not offer gifted-education services consistently throughout the district
- The district did not assess each gifted student's level of learning and accelerated rate of learning in all curriculum areas

• Services did not address gifted students' elevated levels and accelerated rates of learning
• Parents were not offered the opportunity to participate in choosing programs and services for their children

"The complaint went to all the basic tenets of the law," says Robert Siewert of the Oregon Department of Education.

Faced with the precedent-setting Salem case, Siewert moved cautiously. "To have done a 'quick and dirty' and found the district out of compliance—you don't get a good, fair picture," says Siewert, Oregon's administrator for special education, including programs for the talented and gifted. "On the other hand, if you give the parents plenty of opportunity to express their concerns and to clarify the issues so you're investigating the right things, you do get an investigation that results in something you can trust. That isn't something you do in 90 days."

In fact, after parents filed their complaint in 1994, it took a year and a half for the department to issue a final report on the allegations. Those months, Siewert says, were spent designing an investigation; gathering an interview team of nine gifted-education specialists from throughout the state; identifying a random sample of 250 gifted Salem students; reviewing files; interviewing a random sample of 30 gifted students, their parents, teachers, and associated administrators; and crunching the numbers on enrollment and gifted-education data. With all the information in hand, Siewert analyzed the facts and wrote a "Final Determination" report—a document that for the first time defined for all school districts the Department of Education's expectations and requirements for gifted education in Oregon.

Salem-Keizer did not fare well. The January 1996 report found the district out of compliance with the law in four of the five allegations. On the fifth allegation, identification of gifted minority students, the district was found in compliance—a finding that raised the parents' ire and made headlines. The state's conclusion that Salem-Keizer is making reasonable efforts to identify and serve talented and gifted minority children "flabbergasted" parents, reported *The Oregonian* on June 19, 1996. "The state is 'reinforcing a system of keeping kids of potential out of TAG programs' by saying the district's policies are OK," Susann Kaltwasser was quoted as saying. Siewert countered the charge. "Salem has taken as good a shot at this as any district in the state," he told *The Oregonian*. "I'm not willing to say they have failed to make a good-faith effort."

Siewert notes that minority group enrollment is sometimes so small that statistical comparisons are difficult. For instance, 1.28 percent of the Salem-Keizer enrollment is American Indian, while .56 percent of the district gifted enrollment is American Indian. Allowing for normal statistical variation, those percentages are reasonable, Siewert says. Even in the case of Hispanic students, where total district enrollment is 9 percent and gifted enrollment is a mere 1.3 percent, Siewert says that normal statistical variation makes it hard to say with certainty that discrimination is occurring.

Steve Nelson of the Northwest Regional Educational Laboratory argues that there is a "highly significant difference" statistically between overall Hispanic enrollment and gifted Hispanic enrollment in Salem-Keizer. But he agrees that discrimination alone won't explain the gap. "There are other factors at play that go beyond race, gender, and ethnicity to explain the variability in kids' performance in school and on standardized tests," says Nelson, Director of Rural Education for the Lab. "Mobility, poverty, and language proficiency are the Big Three in predicting school success."

"Overall," Siewert says, "(Salem's gifted program) wasn't as bad as the parents were alleging. The district was doing some very good things. But in all cases where you have a large system, it isn't always being done consistently and isn't always being done right in every place.

"There were many cases," he says, "where it looked like (gifted-education services were) going on, but the district couldn't 'show their work.' There were cases where (providing services) just wasn't happening. The district was doing OK, but this is truly a pass-fail

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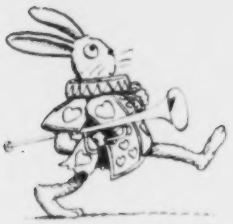


"Overall, Salem's program wasn't as bad as the parents were alleging. The district was doing some very good things. But in all cases where you have a large system, it isn't always being done consistently and isn't always being done right in every place."

system—either you are or you aren't—and so we found them not in compliance."

THE NITTY-GRITTY

It was a tough message. Charlotte Sachtjen of the Salem-Keizer gifted-education program was one of a cadre of district personnel who responded to the state's concerns.

"There were times it was very frustrating," says Sachtjen. "There were times when it was extremely painful. There were times when we all shed tears. But we put that aside and our main focus really was, what are our programs and services to kids and are we communicating them to parents? When it really got down to the nitty-gritty, there were things that needed to be done that weren't being done. So in my mind, it was very painful, but it was a good thing."

Through focus groups, community meetings, district inservice, and teacher training, the gifted-education department put together a plan to correct, monitor, and evaluate the program. After the state's findings, the district brought in a consultant to provide daylong workshops on instructional strategies for meeting children's level- and rate-of-learning needs. Other changes included providing teacher time to plan challenging curriculum and clustering gifted youngsters—putting all or many of the gifted fifth-graders at one school in the same classroom, for instance. Clustering not only allows students to challenge each other, but it also can put the task of teaching them in the hands of the most capable or experienced teacher.

Clustering differs from the widely discredited practice of tracking—grouping students by ability for most of the school day, often throughout their school years. Clustering, in contrast, groups gifted students only in their areas of strength. Rather than being elitist, as some critics charge, clustering provides the same thing for gifted students that other children receive in heterogeneous grouping: consistent opportunities for learning challenges, according to gifted-education expert Susan Winebrenner. In her book *Teaching Gifted Kids in the Regular Classroom*, Winebrenner says that clustering can be a humbling experience for a gifted student, who is suddenly challenged to work at a peer level. Gifted students also benefit by having the company of their peers while working on differentiated curriculum. And there's a bonus benefit: Achievement levels often improve for all students in classes where gifted kids are clustered.

Two key changes are at the heart of the Salem plan: to improve documentation of efforts in gifted education and to increase district-parent communication. Improved parent communication began with a meeting in September 1996 for all interested parents to lay out the "good, the bad, and the ugly" of the state's findings, in Sachtjen's words, and to detail the district's plan to respond. The department revised the gifted-education handbook for parents—also translating it into Spanish and Vietnamese—and improved communication about gifted-education activities in school newsletters.

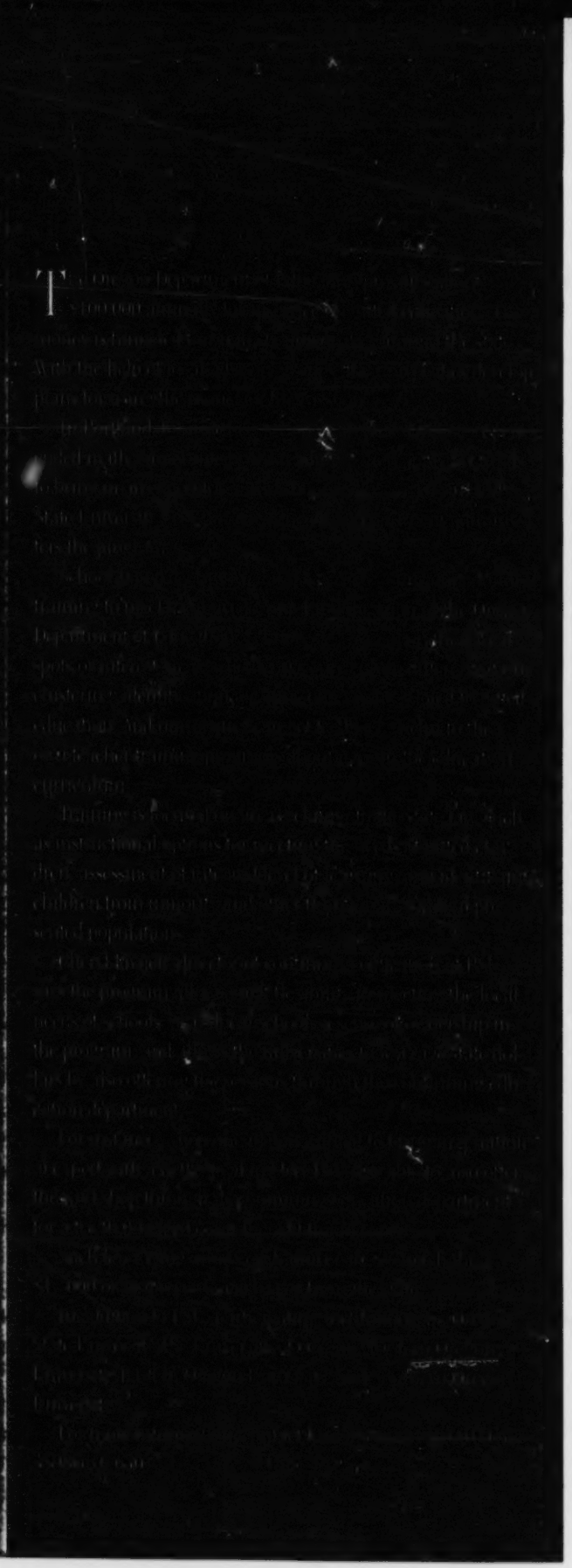
Throughout the process of self-scrutiny, the district focused heavily on its lack of documentation of assessment and services—a lack which the state repeatedly pointed out in its findings of noncompliance.

"It wasn't that we had not made efforts to be in compliance," says Sachtjen. "But there wasn't specificity (in documentation), and even though we had some process throughout the school district, we hadn't, in my mind, institutionalized it."

The spotlight on documentation brought some key issues into focus, Sachtjen says. To document something, one first must define it clearly. So the district crafted specific criteria and guidelines for assessing level and rate of learning. It identified teaching practices for reaching kids at the right level and moving them along at the right rate. And it came up with criteria for documenting that such instruction had occurred. If teachers could show how they provide challenging instruction to gifted students, the district reasoned, the program's camouflage might be pulled aside. Parents could be more certain their kids were getting the services state law promises.

An interim audit the district ordered found huge improvement in documentation. But for parent

Tailoring Teacher Training to the Community



Susann Kaltwasser, whose youngest child graduated in 1997, the district's efforts are flawed because of their heavy emphasis on documentation. She asserts: "There's been a lot of effort to document, but not to change teaching and outcomes."

District efforts are being monitored by the state for the next two years. Despite lingering parental skepticism, early anecdotal reports from schools indicate that the Salem-Keizer reforms may be having an effect. At least some students now find their classes more challenging, Sachtjen says.

One of those students is Nathan Knottingham, a senior at McKay High School. Knottingham, who serves on the school's gifted-education advisory committee with educators and parents, totes a thick appointment book wherever he goes. He needs it to track his schedule—which includes swim team, tennis, drama, church, Model United Nations, volunteer work, and a part-time job. "I book myself to feel challenged," Knottingham explains. Those bountiful bookings backfired in his junior year when teachers began implementing the program revisions generated by the state's investigation. Knottingham suddenly found his advanced-placement classes more interesting—and more demanding. His jam-packed schedule got tougher to manage.

Still, for Knottingham and others, the district's changes came late. He spent years bored and frustrated in classes where he finished assignments in the first 15 minutes

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of the period and spent the rest of the class trying to fill time. "Wasted semesters," he says, matter-of-factly.

SNOWBALL EFFECT

The Salem complaint has spurred districts around the state to examine their own programs for talented and gifted students. In Beaverton on Portland's urban fringe, Beverly Hobson, coordinator of curriculum and assessment, made a careful review of the district's program in light of the state's findings. She also sought further clarification and input from both state and Salem officials. "Our goal," says Hobson, "is to improve our program and services every year."

In Eugene, gifted-education coordinator Betsy Shepard says the Salem case highlighted the importance of linking instruction to the gifts and aptitudes kids bring to class. To help teachers better meet the needs of gifted students, the district recommends materials such as *Middle School and Gifted Students* by James Curry and John Samara, which provides a seven-step process for developing curriculum units for gifted students. Another resource it suggests is *The Engine-Uity Limited Series*, which offers hands-on methods for individualizing curriculum.

Eugene hasn't faced organized parent concern about its gifted-education program, Shepard says, but that may be because of the flexibility the district offers. Open enrollment lets students pick any school. They also can tap into classes at higher grade levels, enroll in honors programs, or move on to the University of Oregon if they're ready. "I don't want to say it's all roses, because it's not," says Shepard. "But we are very flexible, and I think that helps students get the education they need."

While Beaverton and Eugene parents have not filed Salem-style complaints, Portland parents have. In March, eight parents filed a 21-page complaint with the state Education Department about gifted-education services in Portland Public Schools—Oregon's largest district. The main charge: Portland is failing to provide instruction to identified gifted students at appropriate grade levels and rates of learning.

Margaret DeLacy, one of the complainants, has been involved with gifted education since her oldest child was identified as gifted about 10 years ago. A medical historian, DeLacy used her research background to compile the minutely detailed binder of supporting documentation that accompanied the complaint letter. DeLacy and her seven co-signers say the district is failing to follow its own guidelines—guidelines the parents see as minimally acceptable. She suspects that many more parents of gifted children are dissatisfied with the district's services, but hesitate to complain for fear of making things worse for their child.

"For the kids," she says, "it's like being in jail. They're sitting there all day listening to stuff they already know. It's as if a teenager somehow was shrunk into a seven-year-old's body and was put in a second-grade class."

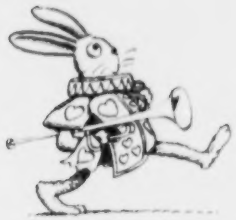
At first, she says, such youngsters might try to explain that they don't belong in the class. Then they might try to prove they don't belong by, for example, calling out rapid-fire answers to teachers' queries. Eventually, they can drift into apathy.

"It's a human rights issue," she says. "Schools have no right to confine children unless they are giving them an appropriate education."

Gifted services could be provided at little or no additional cost, DeLacy believes. Schools could cluster bright children in one class or at one school, she says. Or they could pitch an advanced math class to the top third of the class. Or allow children who can handle advanced curriculum to move to a higher grade classroom for that subject—a technique called acceleration. Such steps wouldn't solve all the problems, DeLacy admits, "but it would help a lot at no additional cost."

Sue Hagmeier says she understands DeLacy's concerns well. When Hagmeier's oldest child entered school, the youngster came home in tears almost daily—bored and frustrated by the slow pace of the class. "I felt," says Hagmeier, "like I had an emergency on my hands."

Hagmeier began advocating for



her child, learning the ropes of the system. In time, she became chair of the District TAG Advisory Committee (DTAC) and later was elected to the school board.

DTAC, a committee of district parents, wrote a position paper several years ago that was used by a district task force as the framework for the district's gifted-education guidelines. The guidelines call for all gifted students to be identified; their appropriate level of instruction to be assessed; an individual and specific plan for delivery of services to be written early in the school year; and seamless delivery of appropriate services to be given throughout the student's time in the district.

To identify gifted students, Portland uses the Frasier model, which relies on an observation matrix—having the teacher record observations of the child's problem-solving skills, inquiry strategies, reasoning ability, memory, motivation, humor, and other traits. Developed by Dr. Mary Frasier of the National Research Center on the Gifted and Talented, the model was devised in part to help identify minorities and other children who might be missed by relying on standardized test results.

Of the 58,000 Portland students last year, about 5,000 were identified as talented and gifted. In rounded figures, the district's gifted-program enrollment by ethnic group is:

- 82 percent White (total district enrollment is 68 percent White)
- 9 percent African American (16 percent district total)
- 6 percent Asian and Pacific Islander (9 percent district total)
- 2 percent Hispanic (5 percent district total)
- 0.7 percent American Indian (2 percent district total)

One key point made in the guidelines is that gifted kids can't be lumped together as a homogeneous group. There are gifted kids, and then there are really gifted kids—students with abilities so great that their instructional needs are distinct from other gifted children's. These "exceptionally gifted" children are those performing at the 99.6 percentile or higher on national tests. Typically working five or more grade levels beyond their age in one or more subject areas, these 150-plus IQ students often have their own set of intellectual, social, and emotional needs.

Services in the district are generally determined on a school-by-school approach. Teachers develop a written plan for gifted students that tailors instruction to match their level and rate of learning.

MODIFYING CURRICULUM

Modifying content for the gifted student can take several forms. The teacher may let a child move quickly through the curriculum. Or he may present more advanced or complex concepts and materials. He might ask the student questions that require advanced thinking processes or that stimulate inquiry, active exploration, and discovery. Or he might allow the student to demonstrate what she has learned in creative or novel ways. For example, the student might design a game around the theme and characters of a novel in lieu of a book report. The goal: to encourage students to think about subjects in more abstract and complex ways.

Progress, Hagmeier believes, has come slowly. Still, it has been made. The child who five years ago came home in tears is "pretty happy" in middle school, and Hagmeier's second child—also identified as gifted—is doing reasonably well with school, she says. "I wasn't really aware of progress during any six-month period," she says, "but when I compare the experiences of my two children, I see that progress has been made."

Hagmeier believes educators need to remember that gifted kids are still kids, not "small adults."

"They need to be able to behave like a kid around things they are interested in," Hagmeier says. "A specific challenge for those of us who care about them is to protect them from loneliness, to find for them opportunities for the kinds of joyful interactions that all kids are entitled to."

When asked to grade Portland's gifted-education program, Hagmeier gives it a "shows improvement" mark.

"Substantial progress has been made," she says. "I really believe that some basic beliefs and attitudes (among educators) have

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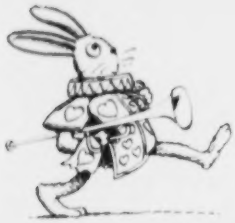

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Hagmeier is, however, sympathetic to those parents who disagree with her. "These are families who have done everything they're supposed to," she says. The district, she says, should be more responsive and flexible in dealing with their concerns.

One new Portland school is specially designed to challenge bright students. WinterHaven—a magnet school launched last year with a math, science, and technology focus—has drawn a high proportion of gifted students to its K-8 program. Housed in the Brooklyn Elementary School, WinterHaven's 100 students are grouped K-2, 3-4, and 5-8. Students spend half-days with a math and science specialist and half-days with a language arts and social studies specialist.

Parents play a key role at WinterHaven. They teach Wednesday electives—called interest classes—on traditional academic subjects such as chemistry, German, and anatomy. They also devise more unorthodox offerings, like "Demolition Derby," where kids take apart clocks and other mechanical devices to see how they work. At the end of the 1996-97 school year, WinterHaven's teachers decided to spend two weeks of their own time, unpaid, refining curriculum for the next year.

Markham Elementary School teacher Gene Casqueiro understands that kind of dedication. A kindergarten teacher, Casqueiro recently spent $60 of his own to buy two books on dinosaurs that he thought would benefit his gifted students. Folding himself comfortably into a kindergartner-sized chair, Casqueiro prefaces any discussion of gifted education by saying: "Every child in my class has a gift—my job is to find it."

The 17-year-teaching veteran is featured in a district video on ways to incorporate challenging curriculum into the regular school day. When he recently gave his five-year-olds an assignment to each build a miniature cardboard chair, for example, Casqueiro enlarged the gifted students' project. The gifted kids were required to turn in measurements and a materials list along with their chair.

Children's learning starts from the concrete and moves to the symbolic, says Casqueiro. For instance, a kindergartner starts by stacking and then counting blocks to grasp the concept of "three." From there, she can make the connection to the symbol "3." Even gifted kids must grasp these steps in sequence, although they may be farther along than other students.

"You can't just give them a fourth-grade book," says Casqueiro, "because they may not be emotionally or experientially at that level." Instead, he uses three primary techniques promoted by Joyce Juntune, past Executive Director of the National Association of Gifted Children:

- "Lids off"—Allow youngsters to go as far as they want in the curriculum.
- "Extension"—Give advanced work related to the theme. For instance, if a child is conversant in dinosaur facts, Casqueiro might suggest he create a slide show on the topic.
- "Instead of"—Offer alternatives. If a child is a dinosaur expert, Casqueiro might ask him to work in another area that interests him while the rest of the class is studying thunder lizards.

These techniques work with all children, not just gifted youngsters, Casqueiro maintains. As with any successful educational experience, parent involvement and student motivation are also crucial.

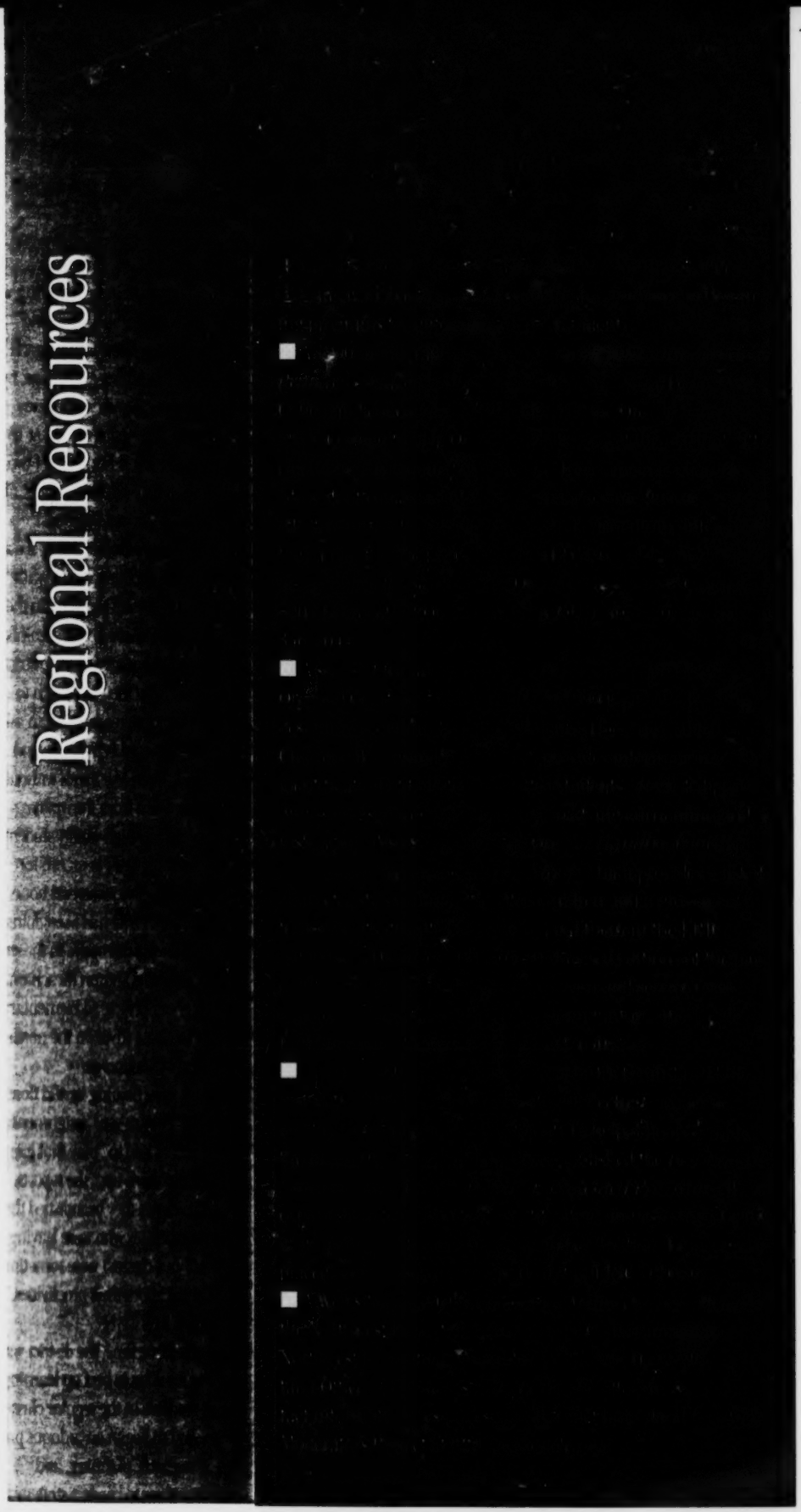
The Department of Education is mid-investigation in the Portland parents' complaint. Whatever the outcome there, Siewert, the state administrator for gifted education, believes the Salem-Keizer case sounded a clarion call to action.

"For school districts in the state," he says, the department's findings in the Salem case are "a clear statement of the intent of the department on how we apply the law. In that respect it set a baseline so every district in the state knows what the department intends to have happen in districts; how we will know it has happened; and how they would know, looking at themselves, if it has happened. They can look at our process, our results, and our expectations and apply that to their own programs."

But on the larger issue of providing solid education for gifted students, Siewert finds the situation more troublesome. "We

have," he says, "a minimalistic law that deals with only a portion of the talented and gifted children and focuses on a particular instructional outcome—accelerated learning. To that extent, I think we're asking the very bare bones minimum of school districts in terms of who they're serving and what the service is. You don't have to go out and invent new curriculum. You don't have to buy new stuff. You have reading curriculum, you have social studies curriculum, you have math curriculum. All you have to do is get the kid to the right place in the curriculum at the right time.

"The ideal is for a school to have an instructional system flexible enough to meet the kid at the doorstep of their instructional need and allow that kid to make progress according to their abilities at any academic level. I believe that every kid has the right to receive an education. There are a number of very bright kids in the state who are not receiving an education. What they're receiving are repetitive tasks which they already know how to do." ■



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Bright Lights

FIVE GIFTED KIDS

AND THE PROGRAMS THAT SERVE THEM

BY LEE SHERMAN

GIFTED STUDENT PROFILE

Name: Sarah Eby

Parents: Carol, art teacher; and Dennis, engineer

Home: Eagle River, Alaska

Special Interest: Competitive gymnastics

Intended Profession: Veterinarian

ANCHORAGE, Alaska— Sarah Eby was born in the spring, as the snowpack began to melt and rush headlong down the Chugach mountains rimming Anchorage. By Thanksgiving, Sarah was already taking her first hesitant steps. At 18 months, she knew her ABCs. At two years, she spoke whole sentences. She taught herself to read at four.

Like many gifted children, Sarah learned fast, shooting rapids while other kids were still paddling in the eddies. Some teachers and administrators in Anchorage School District, dissatisfied with their approach to gifted education, recently began asking how they could challenge and engage children like Sarah without removing them from the mainstream. Taking high-ability students out of their regular classroom for enrichment activities several hours a week, as the district had been doing, "was somewhat disruptive to the students," explains Sharon Meacham, Principal of Homestead Elementary School in Eagle River on the northwest edge of Anchorage.

"Kids were floating in and floating out." They missed assignments, and teachers had to "play that game of catching them up," she reports. And sometimes they brandished their braininess. "Kids who were leaving (for pull-out classes) were sometimes quite elitist about their proclivities," Meacham says wryly.

At the same time, the district was looking for ways to beef up learning for all students in the regular classroom. And so began an arduous process of research, planning, and experimenting to create a strategy for serving gifted students while benefiting all students.

One of the specialists the district consulted was Dr. Carol Ann Tomlinson at the University of Virginia. A classroom-based model "makes sense on two counts," says Tomlinson, who sits on the board of the National Association for Gifted Children. First, she notes, it "deals with the issues of excellence and equity—issues that all schools struggle with." In providing for excellence, she says, schools should not "reserve special help for certain groups of kids." Instead of offering "something frilly on the side" for advanced learners, schools should "teach more teachers to teach in a high-end way" for all learners.

Second, because gifted students spend the "biggest chunk, the critical mass" of time in the regular classroom, pull-out models don't meet them where they are and give them what they need during the bulk of the school day and year. The classroom-based model is, therefore, more "time efficient" than pull-out approaches, Tomlinson argues.

What emerged after several years of "baby steps," "backing up," and lots of "bumps and grinds," in Meacham's words, was the district's Classroom Delivery Model for Gifted Services. The model, which has stirred intense interest at several national gifted-education conferences where it has been presented, has several key features:

- Curriculum compacting
- Tiered assignments
- Flexible grouping
- Critical and creative thinking skills

"It's Definitely Funner"

• Questioning strategies

At Homestead Elementary, where the model was piloted, a gifted-education consultant spends two and a half days a week working with gifted students and with classroom teachers to plan units that are "differentiated." Such units offer learning opportunities across a range of learning levels or tiers. For gifted kids, that means more depth, greater complexity, and faster pace. For a unit on the Revolutionary War, in which all the students found period songs, poems, and recipes for a mock wartime newspaper, gifted students wrote original songs. For an assignment on inventions of the 1800s, in which all students had to rate an invention for usefulness and impact on society, as well as make diagrams and blueprints, gifted students were required to compare the invention to a recent invention with a similar impact. And there have been a lot of independent projects. Three girls last year investigated insectivorous ("killer") plants. Another group of sixth-graders studied the social impact of songs of the 1950s, '60s, and '70s.

But it's not just test-identified gifted students who get to tackle the tougher assignments. A teacher can recommend other highly interested and capable students for gifted services if she wishes. With students clumped by interest, ability, and learning style, the groupings are always in flux.

"It's not always the same kids," says gifted-education consultant Holly Gould. "I have to look at my records to remember who's identified as gifted. Kids are able to blossom at their own level. Just because they aren't certified gifted (reaching the 95th percentile on a battery of ability and achievement tests) doesn't mean they can't participate."

For Sarah Eby, whose gifts include gymnastics (she took a couple of firsts in statewide competition last year), the classroom-delivery model means she can widen and deepen her learning every day. Gould, who describes Sarah as "incredibly creative and articulate with a sense of humor," says: "Sarah has embraced our program and run with it. She's always looking at possibilities for extensions, no matter what the unit."

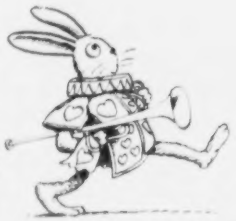
For an Egyptian unit in fourth grade, for instance, Sarah made a plaster and gauze replica of King Tut's death mask. In sixth grade, she invented a trivia game on the Great Depression. She and some friends performed a modified version of *Johnny Meets the Blooms*, a play on Bloom's Taxonomy in which Sarah played Johnny's Brain (says Sarah: "We changed some of the parts because we wanted to make it more interesting for the kids watching it").

Sarah has experienced both the old and the new models at Homestead Elementary. She gives the classroom-delivery model (CDM) the nod.

"The pull-out program where we did brain teasers and stuff was fun," she says. "But CDM is definitely funner because I'm learning more about what we're learning in class."

Two strategies have surfaced as Anchorage's most powerful gifted-program components: theme-based curriculum and cluster grouping of gifted students, says Fran Talbott, the district's supervisor of gifted programming. Themes make curriculum more relevant to students, says Talbott, who spearheaded development of the classroom-delivery model. And clustering challenges gifted students "all through the day" instead of a few hours a week in a pull-out approach.

"Until we start treating gifted kids as if they are gifted all the time, and raise the expectation levels for all students," says Talbott, "we are wasting our nation's most precious resources."



GIFTED STUDENT PROFILE

Name: Wengi Shao

Parents: Jiena Miao, homemaker; and Qiman, assistant professor of mathematics

Birthplace: Hang Zhou, in the province of Zhejiang, China

First Language: Mandarin

Current Home: Eugene, Oregon

Special Interest: Piano

Intended Profession: Physician

EUGENE, Oregon—The principal at Bailey Hill Elementary School would feel quite comfortable handing his job over to Wengi Shao—pianist, aspiring doctor, top math student, third-grader.

"I think I could give Wengi the school to run, and she would do just as well, if not better, than I," says Doug Gallup, with only a hint of humor.

Described by school psychologist Bob Simpson as a "natural leader," Wengi helps Simpson out when students in the talented-and-gifted (TAG) pull-out group drift off-task. "I can call on her, and she'll say, 'If so-and-so were to be moved, this disruptive corner would calm down,'" Simpson reports. "She's socially very, very alert." So alert, in fact, that talking to Wengi is "like talking to an eighth-grader," Simpson says.

Like many gifted kids, Wengi has the poise and presence of an older person. Still, she has the emotional needs of any third-grader. "Wengi is extremely precocious mentally, but very much her own age emotionally," observes piano teacher Patricia Chase, who's teaching Beethoven bagatelles and Bach preludes to Wengi. The trick to working with her, she says, is "finding the happy balance" between the big intellect and the little girl.

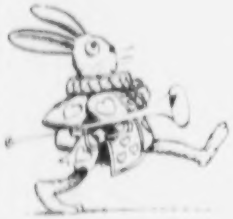
Meeting the social and emotional needs of academically and intellectually precocious youngsters is the main mission of the gifted program at Bailey Hill. But as recently as two years ago, the school—which serves one of the Eugene School District's poorest neighborhoods—had no TAG program at all. An earlier TAG program had been scuttled to save money, and nothing had replaced it. Gallup had just taken the principal's post when a parent, new to the neighborhood, asked about services for gifted kids. She learned that there weren't any (only one student was identified as gifted at that point). So she took advantage of the district's open-enrollment policy and moved her child to another school. "Doug and I sat down and said, 'This is not good,'" Simpson recalls. "'We're losing the real high-caliber students.'

"What I was picking up from both parents and teachers," says Simpson, "was that this was a low socioeconomic school that didn't *have* TAG students, so we didn't need to really deal with this issue. When I began testing and came up with a list of 28 students, the teachers said, 'How can that be?' They were taken aback because their perception of Bailey Hill was that we didn't have enough (bright) kids for a TAG program."

A student we'll call Marcus was one of the highly capable students the school had overlooked. Marcus was acting up and sloughing off. He was a member of a "mini-gang," Simpson says, whose members pride themselves on doing poorly in school. Thinking Marcus might benefit from remedial help, Simpson brought him in for testing. The boy's reading score, it turned out, was practically off the chart—on the high end. He scored in the 99th percentile.

"Here was a youngster who comes from a very disadvantaged

The Odd-Persons Group



home," says Simpson. "When I shared with him that he was TAG-eligible, he said, 'You mean I'm smart? My mother and my older brother always tell me I'm dumb. They always tell me I can't do anything.'"

To begin turning attitudes around, Simpson put together a couple of once-weekly, one-hour pull-out groups—one for gifted second- and third-graders, and another for fourth- and fifth-graders. The official focus is leadership and social skills training. Mostly, though, it's a chance for the school's quickest kids to bond with their peers in a supportive environment. A key activity is solving hypothetical "what-if" problems. One of these "what-to-do" exercises helps TAG kids fight boredom in class when they finish their work ahead of other students—a problem many gifted students encounter. The TAG students rehearse approaching their teacher and saying, "I'm done with my math assignment, and I'm bored. Is it OK if I work on my reading now?"

"The power of role playing is like teaching a football player a new play," says Simpson. "He may have it in his head, but until he actually runs the play through, he doesn't really have it."

Marcus, the mini-gang member, spent six months in Simpson's group. "For the first time in his life," Simpson says, "he was introduced to kids who are positive, who are on task, who have positive relationships." The boy's outlook and behavior got better for awhile. But he regressed. Finally, he became so disruptive that Simpson reluctantly booted him from the group.

Says Simpson: "I wish it could have been more of a success story, but the fact that we shared with him that he *is* capable will, I hope, always be with him. I'm hoping that someday down the road, he'll remember his six months with us, and he'll compare what it was like to be with those (TAG) kids and with his present friends."

Although Simpson believes singling out gifted kids can boost their self-esteem and spur their aspirations, he works with them to squash superiority. He has one rule for the group: They don't publicly call themselves the TAG group. Last year's students decided on Bob Simpson's Odd-Persons Group for their moniker. When other students ask what they do, they say they work on problem-solving exercises.

Besides meeting weekly in the support group, TAG students at Bailey Hill serve on the student council. And Simpson and Gallup confer with parents and teachers to write an individual TAG plan modifying and embellishing regular classroom work for each identified child.

Third-grade Wengi, whose father Qiman Shao teaches statistics and probability at the University of Oregon, studies math with the fourth-graders. "She's very strong in math," says Wengi's dad, who's from Hang Zhou, China. "The teachers are very supportive. Wengi really appreciates her math teacher."

These days, Bailey Hill trumpets its "active and growing" TAG program on its Web site. "In the past," says Simpson, "people have thought of Bailey Hill as blue-collar, and the bright kids go somewhere else. We felt there was a real need to change our image."

SteveSystems Inc.

IDAHO FALLS, Idaho— Even as a two-year-old, Stephen Brown was focused ("he could stay with something for a long time," says his mom, Karen) and contemplative ("he spent a lot of time observing"). He was fascinated by hinges, joints, machines, "anything that moved." He learned to read at three, "practically out of the clear blue sky"—a feat that "flabbergasted" his folks.

When his dad brought home an old cast-off computer, Stephen glommed on, graduating from games to programming by age nine. "It's pretty easy for me to do stuff on the computer," says the 10-year-old without a whiff of conceit. He talks off-handedly about using a presentation program called Hyperstudio to make a "song machine" called the Boombox 3000, and he offers a spirited defense of the Macintosh over the PC. So nobody was particularly surprised last year when he formed his own computer consulting firm, SteveSystems Inc., complete with business card (he designed his own logo) and Web site ("I've sort of mastered making frames on Web pages," he offers). A debugging specialist, Stephen has had several clients, including one who paid him $25 for his services.

As one of the top-scoring 2 percent of students in Idaho Falls School District, Stephen is bused to another school once a week for a full day of applied problem-solving activities, in-depth research projects, and creativity exercises. Stephen likes doing "advanced stuff" in his pull-out class for able learners. But, in response to reform trends that favor inclusion, the district has embarked on a large-scale program to train teachers to better serve gifted students like Stephen all day, every day, in their regular classroom.

The strategy being taught is "curriculum compacting." The basic idea is to exempt quick learners from drill and practice (aka "drill and kill") when they have already mastered the material. Kids can "test out" of a math unit by scoring high on a pretest or a test given early in the unit. For reading, teachers offer alternatives to advanced students. If the class is reading *Mrs. Frisbie and the Rats of Nimh* by Robert O'Brien, for instance, quick learners might be assigned to read a more advanced novel, such as *Z for Zachariah*, by the same author. Or they might read *My Side of the Mountain* by Jean Craigh George with the rest of the class, but take it at a faster pace. They would then be free to choose tasks from a menu of activities that call for higher-level thinking skills as defined by Benjamin Bloom in his classic taxonomy. Says Linda Hawley, a gifted-education specialist for the district: "We're finding that drill and practice is what really drags these kids down—and not just the gifted kids but a lot of the higher achievers, too. They catch on so fast, they don't need to sit there and go over and over and over it."

So far, all third- and fourth-grade teachers have been trained in compacting. For the fourth-grade teachers, Hawley and her colleagues in gifted education have created advanced or replacement activities

GIFTED STUDENT PROFILE

Name: Stephen Brown

Parents: Karen, master's degree in social work, and Blaine, chemical engineer

Home: Idaho Falls, Idaho

Special Interests: Computer programming, rockets, music (especially jazz and rock)

Intended Profession: Computer consultant

Definitions of Program/Placement Options for Gifted and Talented Students

Grouping by ability	Grouping within a skill area. May be within the classroom, grade-level, cross grade-level. Most commonly done in language arts and math. May include both acceleration and enrichment.
Cluster grouping	Grouping according to ability or interest in a regular classroom. May be project-oriented, short-term or more extensive. Might involve the use of learning centers.
Cross-grade grouping	Students may be ability grouped with students in a higher grade level.
Ungraded/multiage grouping	Most frequently seen in an ungraded primary setting. Allows a student to proceed at his/her individual pace.
Continuous progress	Individualized or group instruction based on assessed learning level/rate of student. Most commonly used with pre-post testing or mastery learning models. Student may advance through materials regardless of grade placement. Might include computer-aided instruction.
Early entrance	Child enters kindergarten, first grade, junior high, senior high or college prior to age-mates.
Grade-skipping	Process that allows for student to be placed in the grade ahead of usual placement.
Fast-paced classes	Curriculum is offered at a faster rate than usual. Often used in connection with compacting or acceleration.
Compacted curriculum	Reducing the amount of time normally required to cover a subject. May result in acceleration or enrichment opportunities.
Full-time class	Full-time classroom for gifted students. Usually involves fast-pacing, enrichment, emphasis on thinking skills development, etc. Effective student learning model.
Part-time class	Students are grouped for a period of time away from the regular classroom. Examples: elementary resource room, seminars or tutorials. Could also include a special TAG class at secondary level or a counseling class (often for underachieving).
Advanced placement	Formal AP curriculum for which high school students can complete a course and take the AOP exam for college credit. Also, placement in a class more advanced than the student's age. Most commonly offered in math.
College Level Exam Program (CLEP)	Program that gives college credit based on successful completion of college level exam, regardless of how knowledge was attained.
Honors classes	Curriculum offered in greater depth and complexity for students who qualify. Typically for high-achieving, motivated students.
Independent study	Student contracts to complete specific work or project with supervision and monitoring.
Credit by exam	Student successfully completes an examination covering the course material and receives credit without taking the course. Most commonly done for personal finance, health, financial rights.
Concurrent dual enrollment	Attendance in the next higher school setting for credit in both settings (high school and college, junior high school and high school). Also possible between grade school and junior high.
Mentorship/ internship	Student is paired with an expert in a field of common interest with the student being guided in a project or research. Internships may be in career fields (paid or unpaid) in the community.
Early graduation/waiver	In order to enter a career field or college early, a student may graduate prior to completion of requirements.
Academic competitions	Odyssey of the Mind, Science Bowl, Future Problem Solving, Mathcounts, Mock Trial, etc.

Source: *Oregon Handbook for Parents of Talented and Gifted Children*, Oregon Department of Education, Fall 1990

for every chapter in the district's fourth-grade curriculum series. "We were hoping," says Hawley, "that if we prepared most of the materials, teachers wouldn't say, 'Oh, I don't have enough time to do this.'"

Reactions from teachers so far have been mixed—the norm for reform. "The teachers who use it, love it," Hawley says. "The teachers who don't want to use it just don't use it."

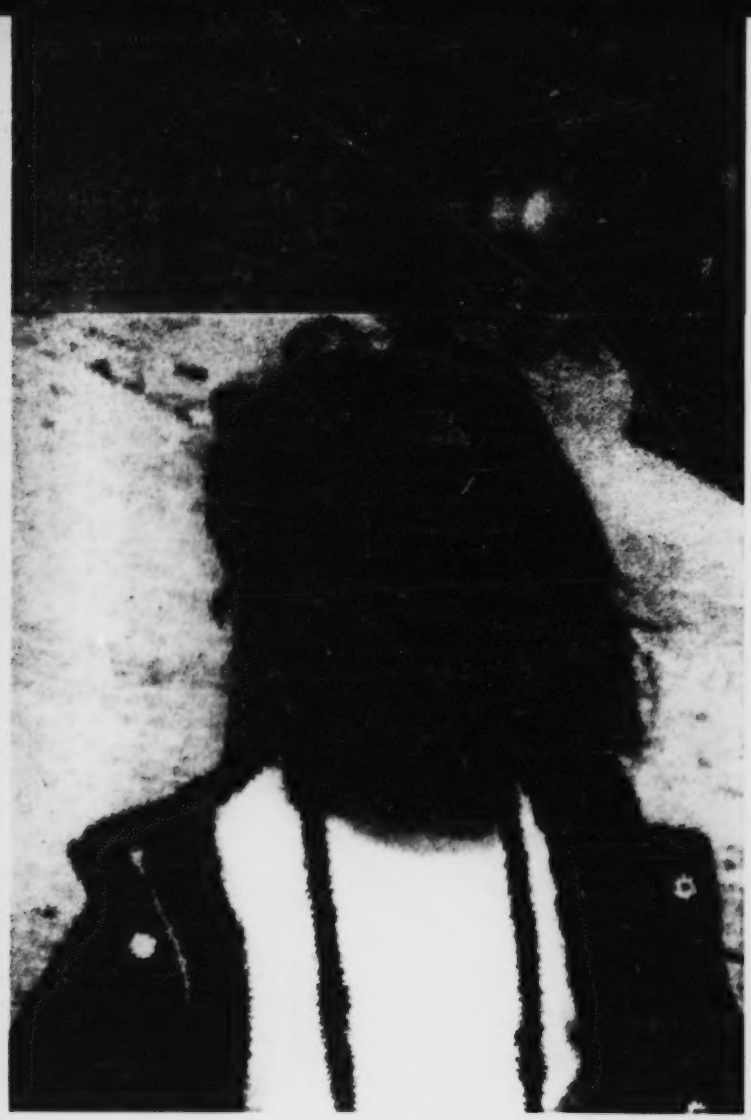
But compacting has been codified in the district's strategic plan. And Hawley is hopeful that parent support will help institutionalize the strategy. "As these kids move up through the ranks, it will become an expectation by their parents: 'I want my child compacted.' I think it will eventually be used more and more."

Even as the district moves toward more classroom-based services for gifted students, the pull-out component remains intact, largely because of parental demand. When the district tried to pare down the pull-out classes a few years ago, the parents protested, arguing that they had high-needs children, too, Hawley recalls.

"The pull-out program makes a huge difference for these kids socially," she says. "It builds their self-esteem because they really feel valued. It's often difficult for them in the regular classroom—even if they have compacting and this, that, and the other—because the other kids don't share their sense of humor, don't share their intellect, so they don't have an opportunity to really be appreciated for those things."

The social support is one of the best parts of pull-out, says Stephen Brown's mom. "Stephen's had a little bit of a problem socially because kids perceive him as different," Karen Brown says. "He speaks in an adult manner; sometimes he sounds like a miniature adult. He's very serious about things." These traits, plus his single-minded devotion to computers and his lack of interest in sports, blend best in a group of other gifted kids, she says. And she cites another advantage: Realizing there are other kids as capable as himself keeps his ego in check.

The district's fifth- and sixth-grade teachers will be trained in compacting this year. Meanwhile, the district's secondary curriculum is being rewritten to better meet the needs of the highly capable students, says Hawley. "If the state of Idaho, we're losing a lot of our top kids in secondary school," she reports. "There is a huge dropout rate in that group of kids. We're losing students who are among the cream of the crop."



GIFTED STUDENT PROFILE

Name: Dana Francis

Parents: Chris, degree in biology, and Dan, political science and law degrees, owners of Secret Wishes Enterprises, a publishing company

Home: Great Falls, Montana

Special Interests: Robotics, earth sciences, astronomy, art

Intended Profession: Art teacher

GREAT FALLS, Montana—When Dana Francis was a baby, her dad was introduced to the writings of Swiss psychologist Jean Piaget. Dan Francis, the son of a psychiatrist, was skeptical about Piaget's assertion that children couldn't learn certain things before certain ages. So he and Dana's mom, Chris, started playing learning games with Dana. At 16 months, Dana knew her alphabet. At two years, she was beginning to read. At four, she could do simple fractions in her head. She started kindergarten galloping through books at a fifth- or sixth-grade level. By second grade, her math skills had zoomed several years ahead of her peers.

Dana skipped third grade. But her parents rejected the school's suggestion that she skip yet another grade. "Emotionally, that's all she could handle," says Chris Francis. "Emotionally, she's nine years old."

Dana has had a rough time finding a comfortable niche in school, her mom reports. Because she often gets bored and antsy, Dana sometimes talks out of turn.

One teacher, Chris says, "seemed to have the attitude that Dana didn't need extra things, that she needed to do what the class did. It was very frustrating working with her. I don't think she understood that the reason Dana was acting up was because she was so bored."

The school tried pulling the nine-year-old out to work on math with gifted fifth-graders. She balked. She was ill at ease with kids who were much bigger and older than she. Now she works one-on-one with the math lab teacher. Pull-out has its place, Chris believes. But keeping Dana with her age-mates as much as possible is the most desirable option. Says Chris: "I do believe that gifted kids should also be with regular kids (in addition to gifted-only groups), because once they get out of school, they're not always just going to be with gifted people. They need to fit into society."

Although the Great Falls School District has served gifted kids in a pull-out program for nearly 25 years, it recently has taken strides toward making the daily classroom environment more challenging (and less vexing) for students like Dana. At the same time, the district has widened its net, casting more broadly not only for students who have academic and intellectual gifts, but also for those who show artistic, creative, and leadership promise.

Although the changes originated at the central office, each school has had the latitude to shape the new strategies to fit local needs. Each building puts together a team (usually an administrator, a teacher, a gifted-education specialist, and a parent), which then designs a building-level plan for attaining four district goals:

- To provide support for the social/emotional needs of identified gifted students
- To identify, utilize, and involve parent and community resources to expand opportunities for gifted students
- To provide services and materials that will serve as resources for teachers and parents of identified gifted students

"Emotionally, She's Nine"

• To provide identified gifted students with flexible pacing options and opportunities designed to encourage their individual progress

"Even though Great Falls is a large city (by Montana standards), their program is a good one for even small districts to look at because it has been personalized at the building level," says Michael Hall of the Montana Office of Public Instruction. "It's a good example of a site-based program."

Flexible pacing—letting students speed up their learning to avoid getting bogged down in boredom—is central to Great Falls' new approach. To support teachers' efforts to bring flexible pacing (as well as other strategies such as cluster grouping, tiered assignments, scoring rubrics, and curriculum compacting) to their classrooms, the district has been offering inservice workshops for several years. "When you have a top-end kid who's maybe beyond even the teacher, your goal is to open doors for that student," says Julie Korb, a district gifted-education specialist. "We have the obligation to provide opportunities for that child to grow, just like any other student. If that's above and beyond (the basic curriculum), then that's what we need to work for with that student."

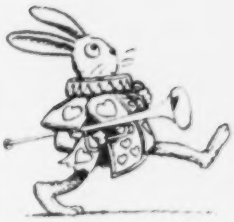
To find kids with a wider range of gifts, the district has added more instruments to its ID toolbox. Now, in addition to the usual standardized intelligence and achievement tests, the district uses such tools as parent interviews, teacher recommendations, and behavior observations. But Great Falls is still working on ways to find more gifted minorities. Translators are sometimes used for interviews with Asian parents. Another strategy is to take a Native American specialist along on interviews with Indian parents "to help with cultural understanding," says Korb.

"We aren't finding as many gifted kids in schools with the highest Native American populations," admits Korb. "We're getting a lot more gifted kids out of schools with a lot more 'parent grooming'—parents with more degrees, higher literacy rates, etcetera."

Native American enrollment in the district is about 1,000 of nearly 13,000 students—8 percent. But only about 20 Native American students have been identified as gifted—just 2 percent of the 1,000 gifted students. In an effort to correct the imbalance, the district's gifted staff is asking Native American resource people in the district for ideas and insights into finding promising Indian students, Korb says.

Other district goals include meeting the social and emotional needs of gifted students, and working cooperatively with the parents of advanced learners. To help meet both goals, Great Falls offers twice-yearly discussion classes for parents built around the book *Guiding the Gifted Child* by James Webb, Elizabeth Meckstroth, and Stephanie Tolan. The classes—led by teachers and parents trained by the district—address the emotional side of giftedness by delving into such topics as motivation, depression, peer relationships, discipline, communication, and stress management.

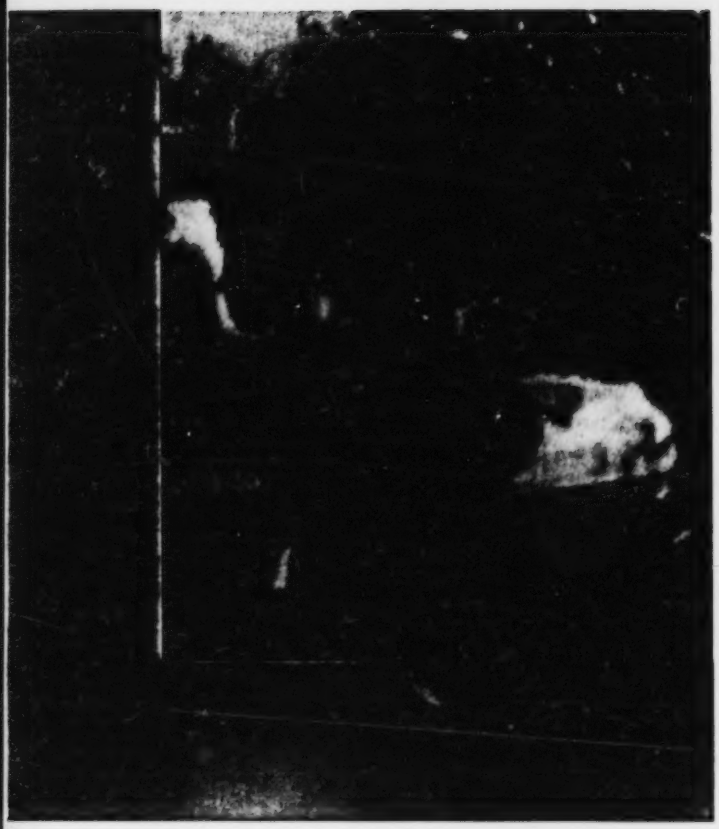
Observes Chris Francis: "Even in the teaching community, some people don't understand that being gifted doesn't just mean that you do everything perfectly. It means that your temperament in many ways is very different."



Dana Francis' mom puts out the newsletter for another parent group, Support Association for Gifted Education (SAGE), which Korb characterizes as "active advocates" for gifted kids. The group puts on the yearly citywide science fair. SAGE is a place "where parents of gifted children can go and ask other parents of gifted children, 'What did you do when your child did *this*?'" Chris Francis says. "I also think it gives the community a way to understand that gifted kids are not such weirdos."

It was through SAGE that the Francises found a math-science mentor at the local university to tutor Dana on robotics after she and a friend worked on a robot for the science fair—a project that involves physics and electronics. Chris wanted a mentor for Dana, someone who was neither parent ("she's at an age where her parents are not cool") nor teacher ("someone who's not giving her a grade").

"I think it's good for her to experience other people's opinions, other people's viewpoints, and their style of teaching," says Chris. "She really needs other people she can talk to who have her specific interests."



GIFTED STUDENT PROFILE

Name: Matthew Sherls

Custodial Parent: Georgette Carter-Sherls, paraeducator

Home: Tacoma, Washington

Special Interests: Volcanos, whales, art, basketball

Intended Profession: Architect

TACOMA, Washington—There's always been "something about Matthew" that makes him a standout, his mother reports. Even when he was still in a stroller, his unusual remarks and astute observations took people by surprise.

"He would say things out of the blue, and his grandfather would say, 'Now Matt, where did you get *that* from?'" recounts Georgette Carter-Sherls. "He'd say, 'My brain told me that.'"

His mother describes him as extremely intuitive ("sometimes you almost think he can read your mind") and humble ("he will forget to show you a straight-A report card"), with a ravenous appetite for books ("we *live* at that library").

His teachers describe him as "very, very bright." "He doesn't say a lot but you can always tell he's thinking," says Leslie Sarno of the Tacoma School District, where Matthew has scored among the top 1 percent of students on tests of intelligence and achievement.

When he was two, he got a leg-up on school: His older sister Jamilia (also gifted) came home each day from kindergarten and led Matthew through the curriculum. "They would both climb into the big chair in the living room," says Carter-Sherls, "and she would teach him every single thing she had learned that day." And (this is the really amazing part, she says) the toddler was "really interested" in these sibling study sessions, preferring lessons on phonics over toys and TV.

When Matthew, along with all district second-graders, was screened for the gifted program, his soaring test scores qualified him for Highly Capable Student Programs. He could have chosen the self-contained program, where he would spend all day in a special class for the brightest 1 percent of students. But the all-gifted class offended his humility and democratic sensibilities, his mother says. In short, he wanted to hang with the regular kids. So Matthew opted for weekly pull-out.

"From Day One, Matthew never liked to be singled out," says Georgette. "He's always been the type of person who wants to bring everybody up with him. He doesn't like to see failure in any of his classmates."

The district's desire to find and serve more gifted minorities was the main thrust behind Project NET (Nurturing Exceptional Talent). Launched several years ago, the project has two goals:

- To bring the proportion of minority students identified as eligible for the Highly Capable Student Programs into line with total minority enrollment figures
- To raise teachers' awareness of the full scope of behaviors that can signal giftedness

To find underserved kids in a district with nearly 40 percent minority enrollment, Project NET gives students a chance to show their thinking skills in action. Because standardized tests often fail to detect giftedness among diverse cultural groups, Project NET puts gifted-education specialists into elementary classrooms in schools where minority kids are clustered. The specialists give all the students a series of

"My Brain Told Me"

hands-on problems or puzzles to ponder, while the classroom teacher observes, looking for kids who shine.

One brain teaser for third-graders "taps tons of reasoning skills," says Steve Gill, a district gifted-education specialist. Here's how it works: The teacher stacks up three dice. He tells the students that if he knows the number on the top side of the top die, he can calculate the sum of all the hidden sides. "They're just mystified by this," Gill says. After wowing them a few times, he gives each of them a set of dice, along with a structured plan for attacking the problem. Very few students figure it out the first time. But the second time the problem is presented, "the light bulbs go on for a couple of kids," says Gill. "Five of 30 usually get it to some degree. You can tell which ones are really sharp when you switch the number of dice and they still get it right because they've figured out how it works."

After a sequence of three or four half-hour lessons, the specialist and the teacher decide which students to recommend for follow-up testing. Scores on group aptitude and achievement tests are only one piece of the total assessment picture for Project NET kids. Also considered are gifted behaviors, classroom work, and anecdotal information from teachers and parents.

The project has had the desired effect: About 35 percent of the gifted kids Project NET has turned up are minority. In contrast, the district's routine second-grade screening with standardized tests typically pulls in only about half the number of minorities, proportionally, says Jody Hess, district resource teacher. Another project plus: All kids learn and grow from tackling the problem-solving tasks.

Although Project NET is being cut back for budgetary reasons, some of the in-class problem-solving lessons will be saved. And the project's other piece—boosting teachers' awareness of telltale signs of giftedness in children who are often overlooked—will continue, according to Hess. Some of the nontraditional evidence teachers are taught to look for include:

- Sense of humor (sometimes offbeat): The child finds humor in situations others that age wouldn't find very funny
- Seeing connections: The child finds links among very disparate ideas
- Persistence: The child will continue to work on a project or assignment after other students have moved on
- Questioning: The student may challenge the teacher about the accuracy or source of information

Besides hoping to lasso ethnic and racial minorities, the district is looking for gifts among kids with behavioral, learning, or other disabilities.

"I still have people who tell me it's impossible for kids with disabilities to be gifted," says Hess. She reminds these skeptics about such notables as Helen Keller, FDR, physicist Stephen Hawking, and Academy Award-winning actress Marlee Matlin.

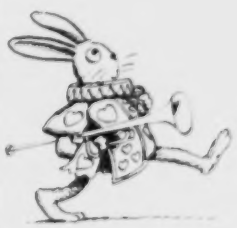
Once in a while, Steve Gill turns up a gifted child who is "behaviorally disabled" and who has "torn the hell out of a dozen classrooms."

"Maybe the reason this kid has been such a hellion to deal with is that he's never received the education he needs," says Gill. Once such a student gets into the gifted program, the disruptive behavior often settles down, he says.

"A lot of us have stereotypes of what you're like when you're gifted," Hess observes. "There are all kinds of gifted people in the world, and they aren't just the ones who are well behaved or well dressed. We're trying to change the mind-set about who can be gifted."

Striking down stereotypes is a particular interest of gifted student Matthew Sherls. For a class project, he researched the life of the Rev. Jesse Jackson, whom he describes as "a civil rights leader kind of like Martin Luther King."

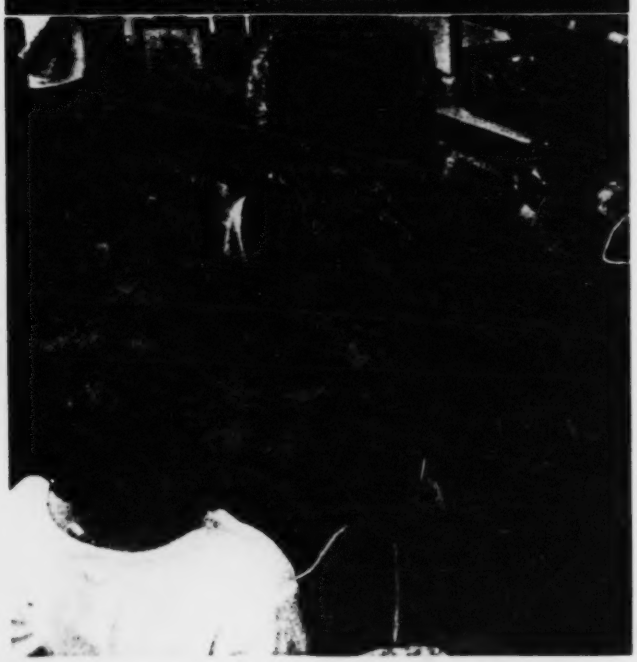
"I admire him," the fifth-grader said, "because when he was growing up, his friends weren't prejudiced about him and he wasn't prejudiced about them, either. The people who *were* prejudiced about him, he just ignored." ■



CUTTING LOOSE

Kids in a Tacoma pull-out program form bonds of acceptance

By Tony Kriendler



TACOMA, Washington—Twenty-one fifth-graders sit on the floor in a large circle, each clutching a piece of the rope that teacher Susan Wiley has woven through her class of highly capable students at Lowell Elementary School.

Some students hold tightly to the rope, while others finger it nervously—wrapping it gently around their wrists and hands or shaping it into a miniature lasso. It's the last day of class together for this batch of Challenge kids. They have attended Wiley's daylong pull-out program for three years, and next year they will scatter to different middle schools, new homes, and faraway destinations (one child will move to Mississippi, another to Jakarta, Indonesia, when school ends).

Wiley, holding the two ends of the 30-foot rope in her lap, looks around the circle of children, takes a deep, calming breath, and begins. "This is really important to me," she says. "And I hope it will be meaningful to each of you. This is our last session together, so please take this seriously."

The students quiet down and focus on their teacher. Wiley asks them to reflect for a moment on how life is like the rope they hold in their hands. Several students immediately shoot their hands in the air, but Wiley slows the process with a gesture that says, "Hands down. Think about this for a moment." After reflecting briefly, students talk about how knots in the rope represent problems in life that must be unraveled and overcome. And they discuss how a rope can break or snap when the tension is too tight. It's important, they note, to know how to take care of yourself and to relieve the tensions in your own life. "How do you do that?" Wiley asks. "Where do you go when your rope is too tight?"

The students' answers reflect the transitional place they are in life. Behind them is the world of childhood, and ahead of them lies the unknown world of adolescence. "Usually, I find somebody I can trust to talk to," says one boy. "I listen to music," offers another. "I sit on my swing and sing," says a girl in the class. "I talk to my teddy bear about all of my problems," a girl confides.

One boy says he looks for a quiet place to think. "I like getting away from people," he says, "so I go to my room. I can climb out my window and sit on the roof and be by myself."

Wiley listens, then asks for a verbal contract from the students. "I charge each of you next year to find an adult—someone you can trust and talk to—to go to when you need help. It will be real important that each of you have a trusted adult in your life."

Wiley goes around the circle and ceremoniously cuts each of the children loose, leaving them with a strand of rope that will serve as a reminder of how they are linked together and how they can rely on each other in the future.

The shared strategies for addressing emotional issues remove feelings of isolation often felt by gifted children, Wiley says. "Students in this class trust they will be accepted and supported by each other, which is not always the case in other environments," she says. "This need for a different curriculum and interaction with a group of peers becomes one of the justifications for creating a block of time where gifted students can meet routinely."

Wiley, a Challenge teacher for 16 years, has 85 students in grades three through five. Some of them, like those she is meeting with on this rainy, gray day in the Pacific Northwest, attend Lowell Elementary. On other days, though, her daylong class is made up of home-schooled students, gifted kids from private schools, and children from other Tacoma public schools who

are bused to Lowell for the program for highly capable students.

"The pull-out program works well here," Wiley says, "because it's been here for so long. Other teachers have gotten to know me and we all work well together."

For example, Wiley has initiated a "Bright Ideas" program at Lowell that provides all students with an opportunity to pursue independent study about a topic that excites them. "Any student in the school can come to me with an idea, and I will hook them up with a mentor to pursue it," Wiley says. "The mentors are usually parents or other experts in the community. It's really important to get mentors who are accessible, who the student can call on and connect with."

Other teachers also can refer enterprising students to the Bright Ideas program, and groups of students can work on a project together. "I like to see children working in groups," Wiley notes. "They keep each other motivated. They're able to bounce questions off each other. They tend to go into more depth when they're working with a partner."

With her Challenge students, Wiley often takes a project approach that addresses learning in a variety of ways. In one activity, the Night of the Notables, students select a famous person and conduct indepth research on him or her. "Because they have selected the person, they have ownership in the learning," she says. "Once they are hooked on the learning, I can lead them through the process skills that apply to learning in most situations."

Those skills—interviewing, writing letters, telephoning people, getting past secretaries to talk to sources, historical research, use of the Internet, and others—are critical to learning. "The content is not the important piece of this," Wiley says. "The process of learning is what's important. Once you have that, you can learn anything."

Learning, Wiley maintains, also needs to be connected to the child's world or to his personal interests. Simply lecturing or drilling kids will numb them to the joys of learning. "Kids have to have a need to learn something," she says. "If it's not relevant to them, why would they want to learn it? So I look for that hook—that idea that will provide the spark or the freedom for them to choose."

And it works, she adds. In the Night of the Notables, students create artistic renderings of their subject, write about her, and present an oral report for classmates. In their oral presentation, some students come dressed as the person they researched. They reveal such details as what the person ate, how she lived, her timeline for success, the failures that helped her learn, her strengths and how she used them, and her weaknesses and how she overcame them.

The Tacoma School District calls its programs for highly capable students Challenge. The program strives to:

- Provide a learning environment that facilitates self-understanding and encourages students as independent learners
- Develop skills in creative thinking, expression, reasoning, critical thinking, and problem solving
- Develop leadership and group interaction skills
- Foster responsibility in students through involvement in group processes
- Encourage students to seek a broader base of knowledge and inquiry while improving and extending basic skills
- Provide an atmosphere that is conducive to the appreciation, recognition, and pursuit of excellence

An enrichment program that encourages Challenge students to be self-motivated, to work cooperatively, and to think critically and creatively can help highly capable students reach their full potential. "We've created a community of children here who can be who they are and have a sense of joy about themselves," Wiley says. "In here, they just really respect each other."

That self- and mutual respect is apparent when the students discuss their participation in the recently completed science fair. Wiley's fifth-grade class had researched their self-identified science projects, hypothesized their outcomes, and completed experiments to determine if their hypotheses stood up to scientific testing. Often, their findings debunked their hypotheses.

For example, one girl tested four chemicals in an effort to determine which would spur marigolds to grow best (warm tea worked best, though the student had hypothesized that warm milk would work better). Another student applied the scientific method to determine which had more bacteria: the thumb or the tongue (he had hypothesized that the thumb would be fouler, but the tongue was more bacteria-laden). A third student investigated what material works best for growing crystals—an experiment that led to an unintended discovery when some of the materials spilled.

The key for these children is to take advantage of even wayward experiments to discover and explore new territory. "Isn't it interesting," Wiley notes, "how accidents and mistakes often lead to new discoveries?"

The lessons that Wiley passes on to her Challenge students are the ones that are increasingly important for all students to learn: decisionmaking skills, critical and creative thinking, teamwork, and consideration.

"If you want a good world," Wiley says, "if you want people to behave decently in this world, then you need to model it. People around you will learn from it. We affect the people around us."

More than anything else, Wiley says, her pull-out program allows students to operate on a level that challenges them intellectually, socially, and emotionally. "It allows them to be who they are." ■

"Talent speaks in a number of tongues; its arts are many."
—Daniel Resnick and Madeline Goodman

A SCHOOL THAT SEEKS TO SERVE GIFTED STUDENTS FIRST MUST FIND THEM. The children most likely to be identified as gifted are White, affluent, well behaved, and high achieving. Underrepresented in programs for the gifted are certain ethnic or cultural minorities, poor or disabled children, limited-English speakers, underachievers, and kids who act out. Girls are underserved in gifted programs focusing on math and science.

Besides limiting participation to a narrow population, gifted programs in America typically restrict the talents they recognize and nurture. Traditional academic and intellectual abilities—being smart in math, science, and language arts—are what most schools look for when they seek out gifted kids. But the virtuoso violinist and the prima ballerina, the potential leader and the inventive genius often fail to surface.

Although published 20 years apart, the two major studies on gifted education from the U.S. Department of Education found the same gaps: too few poor and minority kids, too narrow a definition of giftedness. The *Marland Report* published in 1972 encouraged schools to define giftedness broadly, including leadership ability, visual and performing arts, and creative or productive thinking along with academic and intellectual talent. When *National Excellence: The Case for Developing America's Talent* was issued in 1994, it found that most schools had adopted the *Marland* definition on paper. But in practice, "most continue to restrict participation in programs for the gifted largely to those with exceptional intellectual ability."

To locate gifted kids, most schools rely on group IQ tests along with teacher recommendations, *National Excellence* reports. But studies have found that both teachers and group IQ tests are able to identify only about half of the brightest students. In fact, one study found that "the most highly gifted children were penalized most by group test scores; that is, the higher the ability, the greater the probability the group test would overlook such ability," *Marland* notes.

Mary Frasier, Jaime Garcia, and Harry Passow identify three major reasons for the underrepresentation of minority students in gifted education programs: test bias, selective referral, and reliance on what the researchers term "deficit-based paradigms." The major culprit keeping minorities out of gifted programs is test bias, according to many researchers. Standardized IQ tests have long been accused of being unfair to disadvantaged and minority populations. Selective referral—the fact that teachers less often refer poor and minority students to gifted programs—stems from teacher attitudes toward and knowledge about minority students, Frasier and colleagues note in a 1995 report from the National Research Center on the Gifted and Talented. "The inability of educators to recognize 'gifted behaviors' exhibited by minority students contributes to a low rate of referral," they say. Finally, the focus on deficits "makes recognition of the strengths of minority children difficult," they conclude.

THE TRADITIONAL METHODS OF FINDING GIFTED STUDENTS TEND TO FAVOR CERTAIN ETHNIC GROUPS, studies have shown. The National Education Longitudinal Study of 1988 found that about 8.8 percent of all eighth-grade public school students participated in gifted and talented programs. Racial and ethnic groups were represented as follows:

- 17.6 percent of Asian students
- 9 percent of White students
- 7.9 percent of Black students
- 6.7 percent of Hispanic students
- 2.1 percent of American Indian students

States that use IQ score cutoffs (the 95th percentile, for example) to identify gifted students "are more likely to have larger disparities among racial and ethnic groups," *National Excellence* reports. Joseph Renzulli of the University of Connecticut has noted that "more creative persons have come from below the 95th percentile than above it, and if such cut-off scores are needed to determine entrance into special programs, we may be guilty of actually discriminating against persons who have the highest potential for high levels of accomplishment."

Among the most underserved students are those who are economically disadvantaged. Kids from the bottom quartile in family income made up less than 10 percent of students in gifted programs, the longitudinal study found. In contrast, almost 50 percent of program participants were from the top income quartile.

Heavily weighted with vocabulary, simple reasoning, and analogy questions, IQ tests capture only two types of intelligence—what Harvard Professor Howard Gardner calls the linguistic and logical-mathematical intelligences. To these, Gardner has added the intelligences (or talents) of "spatial ability (such as those used by the pilot, the architect, and the chess player); musical intelligence, which allows people to sing, play, and appreciate music; bodily-kinesthetic intelligence, which involves using the various body components in such diverse activities as athletics or surgery; and interpersonal and intrapersonal intelligences, which involve knowing others and ourselves and can form the basis for both human service careers and for personal understanding and satisfaction," writes Marlene Bireley in *Challenges in Gifted Education*.

Another model that breaks out of a narrow focus on IQ comes from Renzulli, Director of the National Research Center on the Talented and Gifted. As he conceives it, giftedness has three "rings," or aspects, that include behaviors as well as aptitudes. The first ring is above-average general or specific ability (talent). Second is task commitment ("a perseverance, endurance, hard work, dedicated practice, self-confidence, and belief in one's ability to carry out important work"). Third is creativity (the ability to solve problems or undertake endeavors with original ideas and fresh approaches).

For educators in a diverse, multicultural society, the important message behind the new concepts of intelligence is that it "wears many faces," in Bireley's words.

"There are a wide range of gifts and talents that people have," Gardner observed in a 1990 interview for *Gifted Child Today*. "We had better think real carefully before we decide to promote one ability over others. Resources are limited, and the fact that 90 percent of the programs in the country make their placement decisions on the basis of IQ scores is not very praiseworthy."

IF THERE ARE MANY WAYS TO BE TALENTED, THERE OUGHT TO BE MANY WAYS TO SEARCH OUT TALENT, most gifted-education experts agree. By expanding the strategies for finding talent, schools

will not only serve a wider range of giftedness, they also will pull in a broader spectrum of groups. Patricia Bruce Mitchell suggests that states take the lead in "push(ing) districts beyond the 'one size fits all' gifted program." In *State Policy Issues in the Education of Gifted and Talented Students*, a 1994 U.S. Department of Education publication, she writes: "Flexibility in identification and services are essential because of uneven profiles of ability and nontraditional expressions of ability. State standards must not encourage, directly or indirectly, narrow concepts of giftedness.... State policies and practices should strongly encourage schools to seek exceptional potential among all populations and to recognize that the potential of diverse students may be exhibited in nonacademic work."

So what should schools do to give all groups and all gifts access to services? *National Excellence* offers a set of recommendations, saying schools must develop a system to identify gifted and talented students that:

- **Seeks variety**—looks throughout a range of disciplines for students with diverse talents
- **Uses many assessment measures**—uses a variety of appraisals so that schools can find students in different talent areas and at different ages
- **Is free of bias**—provides students of all backgrounds with equal access to appropriate opportunities
- **Is fluid**—uses assessment procedures that can accommodate students who develop at different rates and whose interests may change as they mature
- **Identifies potential**—discovers talents that are not readily apparent in students, as well as those that are obvious
- **Assesses motivation**—takes into account the drive and passion that play a key role in accomplishment

In a 1990 report from the Oregon School Study Council, LeoNora Cohen notes that multiple means of finding talent are needed because "there is no such thing as a typical gifted child," and single measures miss too much of the evidence pointing to exceptional ability or promise. "Experts agree," she says, "that case studies involving multiple criteria coupled with individually administered tests of intelligence are most appropriate." In addition to formal testing, schools should administer parent questionnaires, gather teacher observations after training (using anecdotal notes or a structured checklist), analyze school records, and assess the child's products, Cohen recommends.

WHEN SCHOOLS TAKE THE LEAP FROM LOOKING AT TEST SCORES TO EXAMINING STUDENT BEHAVIOR for signs of giftedness, teachers need guidance in interpreting the actions of ethnic, cultural, and linguistic minorities, whose outward signs of talent may differ from those of the dominant culture. Frasier and Passow, in a comprehensive 1994 study, *Towards a New Paradigm for Identifying Talent Potential*, examine the ways in which culture shapes behavior for Hispanics, African Americans, American Indians, Asian Americans, and bilingual students. Leadership talent among Hispanic students, for example, is most likely to emerge in small-group settings, where Hispanic youth typically accomplish more and produce better work than they do on individual tasks. This trait stems from the high value Hispanic culture places on collaboration rather than on competition.

Write Frasier and Passow: "The search for better identification procedures for economically disadvantaged and culturally diverse students should focus on ways of recognizing the specific behaviors or manifestations of these attributes in various cultural, contextual, and environmental settings. For example, there is consensus that all gifted children exhibit a high motivation to learn. However, the manifestation of 'high motivation to learn' by an economically disadvantaged African American child in an inner-city classroom or a Navajo child on an isolated reservation will differ from the way a middle-class White child in a suburban school might display this attribute."

Donna Ford of the University of Virginia offers the following guidelines for finding and serving gifted African American students—guidelines that hold promise for other underserved gifted students as well. The guidelines are found in *The Recruitment and Retention of African American Students in Gifted Education Programs: Implications and Recommendations* published by the National Research Center on the Gifted and Talented in September 1994.

Guideline 1: A culture of assessment rather than a culture of testing promises to capture the strengths of gifted African American students.
Research support: Testing provides quantitative information on students (IQ score or achievement level, for example), while assessment describes students' areas of strengths and shortcomings. Assessment is diagnostic, prescriptive, and proactive; it allows educators to develop a more comprehensive profile of the abilities and needs of gifted African American students.

Guideline 2: There is no "one size fits all" intelligence or achievement test. Multidimensional identification and assessment practices offer the greatest promise for recruiting African American students into gifted programs.
Research support: The (over) reliance on unidimensional tests for identifying gifted African American students has proven ineffective. Multidimensional assessment examines such factors as learning styles, test anxiety, and motivation; multimodal assessment examines students' particular area(s) of giftedness (creativity, intellectual, psychomotor, or social) using various assessments such as students' products, portfolios, and autobiographies. The combination of qualitative and quantitative assessment practices provides a comprehensive profile of giftedness among African American students.

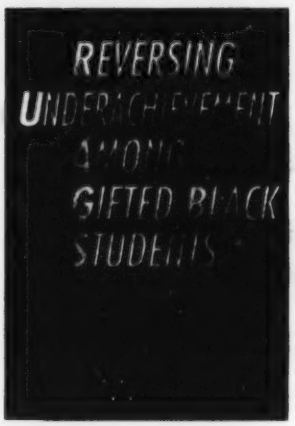
Guideline 3: Identification instruments must be valid, reliable, and culturally sensitive. If any of these variables is low or missing, the instrument should not be adopted for use with African American and other minority students.
Research support: African American students tend not to score well on standardized tests that are normed on middle-class White students. Further, standardized tests often lack cultural sensitivity relative to African American students' learning styles, values, and experience. Thus, they are biased against racially and culturally diverse students. As a result, standardized tests often provide little if any diagnostic and prescriptive information for educators.

Guideline 4: To increase the representation of African

American students in gifted programs, educators must adopt contemporary definitions and theories of giftedness.
Research support: Howard Gardner, Joseph Renzulli, and Robert Sternberg have proposed culturally sensitive theories of giftedness. These definitions are inclusive because they support the notion of talent development, they acknowledge that giftedness is context-dependent and multifaceted, and they avoid the exclusive use of unidimensional tests and related identification practices.

Guideline 5: Comprehensive services must be provided if the recruitment and retention of African American students in gifted education is to be successful.
Research support: To increase the sense of belonging and ownership of African American students in gifted programs, educators must address their academic as well as psychological, social, and emotional needs. Gifted African American students who feel isolated, alienated, and misunderstood by teachers and peers are less likely to persist in gifted education programs than students who feel empowered. Services should focus on counseling needs, including academic counseling and vocational guidance. Options for individual, peer, and small group counseling should also be available to facilitate guidance experiences.

Guideline 6: Teachers who are trained in both gifted education and multicultural education increase their effectiveness in identifying and serving gifted African American students.
Research support: Teachers, counselors, and other school personnel can increase their effectiveness with gifted African American students if they have substantive preparation in multicultural education and counseling. This training increases their sensitivity, understanding, and respect for individual differences among students. Such training can also increase their ability to identify and serve gifted African American students. Ultimately, experienced teachers are more likely to ensure that a philosophy of pluralism permeates gifted education programs.



Guideline 7: To prevent underachievement, gifted students must be identified and served early.
Research support: Underachievement among African American students often begins in grades three and four—the time at which gifted programs often begin. Without early identification and services, promising and capable African American students will have diminished opportunities for being identified or referred for assessment in later years.

Guideline 8: Qualitative definitions of underachievement offer more promise than quantitative definitions in describing poor achievement among gifted African American students.
Research support: Quantitative definitions of underachievement rely exclusively on high test scores. Gifted students who suffer from test anxiety, who confront test bias, who have learning-style differences, and who have poor motivation are unlikely to receive high test scores. Qualitative definitions take into consideration motivation, self-concept, self-esteem, learning styles, and other factors not examined on traditional, standardized intelligence and achievement tests.

Guideline 9: The representation of African American students in gifted programs must be examined relative to both recruitment and retention issues.
Research support: Much of our effort concerning the representation of African American students in gifted education has focused on the recruitment component—identification and placement. Considerations regarding retention must be addressed as well. After successfully identifying and placing gifted African American students, educators must focus on such variables as school climate, the demographics of faculty and students, school personnel preparation in gifted and multicultural education, curriculum and instruction, and program evaluation.

Guideline 10: Family involvement is critical to the recruitment and retention of African American students in gifted education. Parents and extended family members must be involved early, consistently, and substantively in the recruitment and retention process.
Research support: Parents are effective and reliable sources of identification for gifted children. Parents and extended family members (such as grandparents, uncles, and aunts) can provide invaluable information on the academic, social, and emotional needs of gifted African American students. Information on development, health, interests, extracurricular activities, learning styles, peer relations, and identity issues can only be provided by family members in many instances.

Another publication by Donna Ford, *Reversing Underachievement Among Gifted Black Students: Promising Practices and Programs*, published in 1996 by Teachers College Press, examines the social, cultural, and psychological needs of gifted African American students, particularly those with untapped potential.

—Lee Sherman

IN THE HARDIN, MONTANA, SCHOOL SYSTEM we have children who are the descendants of immigrants from Germany, Norway, Japan, and other European and Asian countries. We also have children whose ancestors arrived on the continent thousands of years earlier and whose great-great-grandparents counted coups in the valleys of the Yellowstone and the Big Horn (see Editor's Note below).

As is the case in other, similarly diverse districts, most of our gifted White children are fairly easy to identify. It is not always so easy to find our gifted Indian children.

Fifty-five percent of our students are American Indians. Most are from the nearby Crow Reservation, and a smaller number are from other tribes. Although Indian students technically are the majority group in our district, the culture of the traditional school setting more closely reflects the cultural values of our non-Indian students.

AMERICAN INDIAN STUDENTS' VALUES SPRING FROM A RICH HERITAGE. These youngsters come to school steeped in traditions that focus on strong ethical standards and mores. These traditions teach, for example, that it is important to treat one's elders with respect. Other traditional beliefs hold that working together as a cohesive unit is preferable to individual competition, and that the welfare of the extended family takes precedence over other concerns. Many of the Indian students' values conflict with the competitive culture of the public school, in which individual academic attainment is a student's primary goal.

Over the years we have implemented a variety of measures in our gifted program to provide equity of opportunity to students from all cultural groups. We have gained valuable knowledge through local and national research and through participation in a project conducted through the National Research Center on the Gifted and Talented under the direction of Dr. Mary Frasier at the University of Georgia. Our methods of finding and serving high-ability students have gradually evolved, and current methods bear little resemblance to those used earlier.

Our gifted program is guided by certain beliefs:

- IT IS BOTH POSSIBLE AND DESIRABLE TO USE A SINGLE IDENTIFICATION METHOD to assess the needs and strengths of students from all cultural groups. If children from one group are assessed differently, there is an implication that high-ability students from that group do not "measure up" or cannot be identified according to the same standards as other high-ability students. However, it is vital that all elements of the identification process be carefully selected to ensure that they are not biased in favor of nor against any group.

Gifted American Indian students have acquired a wealth of knowledge. Although rich in tradition, this knowledge often differs from that which has been acquired by other gifted children and which forms the content of knowledge-based tests. Thus, to formally assess intellectual ability, we use tests that do not depend on acquired knowledge.

Twenty years ago, most Crow Indian children spoke their native language when they entered school. Although the Crow language remains the dominant social language among the tribe, nearly all of the children speak only English. While they understand spoken Crow, they are essentially "caught" between two languages and lack the mastery of English vocabulary and usage of their non-Indian peers. Crow students, therefore, are at a disadvantage when assessed through verbal instruments. The Raven Progressive Matrices, Standard and Advanced, are examples of nonverbal instruments we use to equitably assess the ability of all our students. A number of other appropriate tests are available, as well.

Our identification process includes both objective and subjective data. Much thought has gone into selection and development of identification tools. Our parent form addresses characteristics such as imagination, insight, and humor. For each characteristic, several descriptors are given, some of which describe how a trait might "look" among Indian students. The goal is to provide examples that enable a parent to recognize the traits as they are manifested by her child. Although we include standardized achievement test scores in our assessment, a student who does not have exceptionally high scores may still be identified for special services if she exhibits high ability in other ways.

The Frasier Talent Assessment Profile (FTAP) developed by Frasier provides a defensible method of finding gifted students within any population. Dr. C. June Maker of the University of Arizona has also developed methods that are suitable for identifying gifted students in schools with diverse populations.

- AFTER EQUITABLE IDENTIFICATION METHODS HAVE BEEN ADOPTED, some high-ability Indian children do not immediately "surface." The alert teacher watches for signs of giftedness, which may be exhibited in a child's humorous or highly imaginative stories, in thought-provoking questions, or in unusual ideas. The Frasier Profile describes the traits, attributes, and behaviors of giftedness and provides a practical means of observing students for these characteristics.
- GIFTED AMERICAN INDIAN CHILDREN SHOULD BE EXPECTED TO PERFORM AT an academic and intellectual level equal to that expected of other gifted students. Lower expectations imply that the students are not capable of performing at the same level as gifted non-Indian students. However, some gifted Indian youngsters may initially be unable or unwilling to perform at a high level simply because they are not academically or attitudinally prepared for high performance. These students may need individual encouragement and the academic assistance that will enable them to excel and to participate in high-level courses.
- LIKE OTHER GIFTED CHILDREN, GIFTED INDIAN CHILDREN HAVE VARIED INTERESTS

See American Indian, Page 39

Karen Davidson has been coordinator of the school district gifted program in Hardin, Montana, for 11 years. She has had articles published in G/C/T *and* Roeper Review *and was a presentor at the World Conference on Gifted Education in Toronto, Canada, in 1993.*

FIRST PERSON

Below are some of the most frequently asked questions about educating high-ability students, with responses from Michael Hall, director of gifted education for the Montana Office of Public Instruction.

Q: THE TERM "GIFTED AND TALENTED" IS NOT ALWAYS VIEWED VERY POSITIVELY. HOW CAN I AVOID THE MISCONCEPTIONS BROUGHT TO MIND BY THE TERM AND FOCUS ON PROVIDING APPROPRIATE SERVICES TO MY STUDENTS?

Michael Hall: Some people believe it is against the concepts of democracy to provide a different learning experience for one group of students. They criticize the learning experiences provided to gifted students, arguing that all students should have those experiences.

When confronted with this viewpoint, I try to focus the discussion on the issue of educational need. As individuals, we have different levels of knowledge and different abilities to learn. Some students learn slower than others; some learn faster. I prefer the term "high ability/high potential" over talented and gifted to describe these students. This term, I believe, focuses the discussion more clearly on educational needs. The discussion can then progress to specific learning needs and appropriate learning experiences to help that student maximize her abilities and potential.

Q: HOW CAN I HELP OTHERS UNDERSTAND THE NEED TO PROVIDE A MORE CHALLENGING CURRICULUM FOR HIGH ABILITY/HIGH POTENTIAL STUDENTS?

Hall: I have started many professional-development workshops by having participants spend the first 10 minutes completing two or three pages of first-grade math-drill worksheets. When they finish, I give them another copy of the same or similar worksheets. When they finish those, I let them sit (just like kids, they talk, make noise, and so on). Then I talk with them about how it felt to do work that was too easy. I ask them to think about what it would be like to do endless repetitions of the same material, day in and day out. I ask them to think about what it felt like to be bored. I then relate their feelings to those of high ability/high potential students who must do work that does not challenge them and does not further their education. This activity raises educators' awareness of these students' specific needs. We then can focus on possible solutions.

Q: ISN'T IT ELITIST TO PROVIDE LEARNING OPPORTUNITIES TO HIGH ABILITY/HIGH POTENTIAL STUDENTS THAT NOT EVERYONE CAN PARTICIPATE IN?

Hall: It is not elitist to provide appropriate, challenging curriculum to students based on their educational needs. We know that students learn at different rates. We also know it is the task of educators to provide the best curriculum and instruction to maximize students' individual potential.

Learning opportunities provided to high ability/high potential students should be tied to district curriculum goals and be based on the district's core curriculum. To help determine if the learning opportunities are defensible and appropriate, I like to apply the "could, should, would" test: Could this work be done by all students at this grade level? Should it be done by all students at this grade level? Would all students at this grade level do this if given the chance? If the answer to these questions is "yes," I probably have not truly met the student's need for higher-level, challenging curriculum. Nor will I be able to defend the learning opportunities based upon the student's needs. Those learning opportunities may be considered elitist because they are offered to only a few while they should be offered to all.

Learning opportunities are not elitist, however, when they match the student's educational need. Rather, they are just good education.

Q: HOW CAN WE IDENTIFY HIGH ABILITY/HIGH POTENTIAL STUDENTS IN OUR SCHOOL?

Hall: The identification of high ability/high potential students is a very complex process. We need to be sure that the students we identify truly have learning needs that require special attention to appropriately challenge them and to maximize their potential. To accomplish this, screening instruments and tests have been devised.

Documentation demonstrating a student's need for more advanced curriculum and learning opportunities should be kept. Documentation should include samples of student work, anecdotal records, a variety of ongoing assessment data, and input from parents, students, and teachers.

Dr. Mary Frasier of the University of Georgia suggests:

- The focus should be on diversity within gifted populations; the gifted are not a homogeneous group, nor do they express their talents the same way.
- The goal should be inclusion rather than exclusion.
- Data should be gathered from multiple sources; a single criterion of giftedness should be avoided.
- Both objective and subjective data should be used.
- Professionals and nonprofessionals who represent various areas of expertise and who are knowledgeable about behavioral indicators of giftedness should be involved.
- Identification should occur as early as possible and should be continuous.
- Special attention should be given to the different ways in which children from different cultures manifest behavioral indicators of giftedness.
- Decisionmaking should be delayed until all pertinent data on a student have been reviewed.
- Data collected during the identification process should be used to help determine the individual child's curriculum.

For more information see *Planning and Implementing Programs for the Gifted* by James Borland (Teachers College Press, 1989) and *Education of the Gifted and Talented*, second edition, by Gary Davis and Sylvia Rimm (Prentice Hall, 1989).

Q: WHAT CAN WE DO TO BE SURE WE ARE FAIRLY IDENTIFYING HIGH ABILITY/HIGH POTENTIAL STUDENTS FROM ALL MINORITY GROUPS?

Hall: Beyond the general practices that Dr. Mary Frasier recommends, there are several checklists and tests that can be used to ensure fairness in the identification process. For example, the Frasier Talent Assessment Profile (FTAP) helps teachers to look at the characteristics of high ability/high potential students over time in the classroom and to note students who display the characteristics. These characteristics are not cul-

turally specific and may be displayed in different ways by students from different cultures.

One good resource specific to American Indian students, *Identifying Outstanding Talent in American Indian and Alaska Native Students*, is available from the U.S. Department of Education.

Q: WHAT IS THE BEST SERVICE MODEL TO PROVIDE FOR THE EDUCATIONAL NEEDS OF HIGH ABILITY/HIGH POTENTIAL STUDENTS?

Hall: I recommend a research-based comprehensive programming framework that is designed to meet student needs and provide a variety of service options. Not tied to a specific theoretical model, the framework requires support functions such as parent involvement, flexible pacing in the curriculum, and staff development to strengthen the programming options. The framework should be designed based on a needs assessment that collects information from parents, administrators, teachers, and students.

The framework includes a variety of options for students on three basic levels. Envision a pyramid divided into thirds from the base up: The bottom level is the home classroom. Sixty percent of the identified student needs should be met in the home classroom. So the framework must include a wide variety of options for students and teachers at that level. For students whose needs are more specific (about 30 percent of identified student needs), a second layer of options should be provided. Pull-out/send-out classes, special courses, and other options can help to meet the needs at this level. At the top level (10 percent of identified student needs) the options become very specific and advanced. A service at this level might be sending the student to high school or college years before her age peers (a practice known as radical acceleration).

The framework is comprehensive because it includes the programming options already in place, validates them, and expands them to include other options to meet local needs. It recognizes the strength of the regular classroom as the base of services. It also recognizes the opportunities and enrichment that the "essential" classroom teacher brings to that base. It then builds on the base to include options outside the regular classroom to serve the special needs of some students, while also recognizing the needs of those few students who require even more individualized programming. It emphasizes the importance of support services throughout a well-designed program.

According to Neil Daniel and June Cox in *Flexible Pacing for Able Learners* (1988), the key concept in providing appropriate services to high-ability students is to offer options that place students at "an appropriate instructional level, creating the best possible match between students' achievement and instruction, and allows them to move forward in the curriculum as they achieve mastery of content and skills."

For more information on this subject, and a visual representation of the pyramid, see the "Comprehensive Programming" document in the general information section of the Gifted Education Connection Web site at http://www.netc.org/web_mod/gifted_ed/.

Q: I'VE HEARD THAT A STUDENT CAN BE BOTH HIGH ABILITY/HIGH POTENTIAL AND HAVE A DISABILITY THAT WOULD QUALIFY HIM FOR SPECIAL EDUCATION SERVICES. IS THAT TRUE?

Hall: Yes. High ability/high potential students may have a variety of problems that affect their ability to learn. They may have learning disabilities, attention deficit disorder, or physical disabilities. Students who fall into both categories require the coordination of services to maximize their learning abilities.

For more information on this subject, see the Council of Exceptional Children's "Frequently Asked Questions" on gifted children with disabilities or attention deficit disorder at http://cec.sped.org/eriec/faqs.htm.

—Michael Hall

Michael Hall of the Montana Office of Public Instruction is president of the Council of State Directors of Programs for the Gifted.

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LETTERS

GREAT 'ZINE

Great 'zine! I am truly impressed. The issue on charter schools was excellent, though I don't agree with all points of view. It was one of the most well-rounded perspectives I've seen on why they're an issue and how they're viewed. It's the kind of information the general public needs if we're going to make intelligent decisions—though by the looks of things in Salem, it may be too late for that.

Kathryn Firestone
Portland, Oregon

BASIC PRINCIPLES

Now that the 1997 Montana State Legislature has adjourned, I can attempt to catch up on some old business. Part of that old business is my response to "Boomers Want Choice," by Bob Anderson, Executive Director, Montana School Boards Association. Bob's point of view appeared in "Charter Schools: Education Leaders Voice Their Views," *Northwest Education*, Spring 1997.

The charter school bill Bob touted, SB370, was old news long before your publication. MSBA caused SB370 to be introduced in the 1995 Legislature. It came in ugly, a frontal assault on teachers and their professional unions, the Montana Education Association and Montana Federation of Teachers.

As originally conceived, SB370 authorized local school districts and the Montana Board of Public Education to create charter schools that could waive accreditation standards, teacher certification, collective bargaining, teacher tenure, teacher retirement, and even federal law! SB370 did not mention any kind of partnership among trustees and teachers. SB370 provided no guarantees of equitable student access or parental involvement. During the bill-drafting stage, MSBA agreed only to write in teacher certification.

Despite our differences with SB370, MEA/MFT did not work to kill the bill. Instead, in the Senate, we were able to get SB370 amended to our satisfaction, if not MSBA's. The Senate passed SB370 on to the House. Unfortunately, the House Education Committee stripped all our amendments out of the bill and then tabled it.

All this happened over two years ago.

This year, another charter school bill, SB371, was introduced, not by MSBA but by legislators who don't think much of public education. SB371 mandated local school districts to create charter schools exempt from state laws, school district policies, accreditation standards, teacher certification, and collective bargaining. Just about any individual or group of individuals could qualify for a charter and receive public funding. SB371 blatantly invited home schoolers to compel school districts to recognize them as charter schools. SB371 potentially violated Montana's constitution.

MEA/MFT hammered SB371 without remorse. We made no attempt to work amendments into this bill. It was beyond repair. MSBA tried without conviction to make something of SB371. Fortunately, the Senate agreed with us and refused to take the bill from the Senate Education Committee where it died on the table.

Do MEA/MFT oppose charter schools? No. Are we ready to sit down with the Montana School Boards Association and work on charter school legislation? Yes. Have we encouraged our local affiliates to model a "charter school" in their communities? Yes. But in our willingness to work with MSBA or local school districts we are not willing to surrender basic principles.

We believe alternative education, like charter schools, must be public, exist under the auspices of school districts, require teacher certification, embrace collective bargaining, and guarantee equitable student access and parental involvement. We believe these things without apology.

Eric Feaver, President
Montana Education Association

American Indian

Continued from page 35

and need opportunities to learn about topics that intrigue them. Enrichment activities focusing on American Indian cultures enhance the education of all children and encourage appreciation for cultural diversity, but the gifted program should not be limited to such activities.

• SOME GIFTED AMERICAN INDIAN CHILDREN MAY NEED INDIVIDUAL SUPPORT. In addition to the pressures that all gifted students encounter, the gifted Indian student must find a middle road between the values of her own culture and those of the school. She may need emotional support and encouragement from teachers or counselors within the school in order to excel.

A former Hardin student, Grace Bull Tail, who now attends St. Paul's School in New Hampshire on a scholarship, said as a seventh-grader, "I would never want to be judged by anything but my own ability and accomplishments." We have not yet achieved our goal of cultural parity in numbers of American Indian students in our gifted program. However, the Indian students who are in the program participate and excel on an equal basis with their non-Indian peers. Their success rests solely on the strength of their abilities and accomplishments.

—Karen Davidson

Editor's Note: *Counting coups refers to the practice among many Plains tribes of purposely touching or striking an enemy during battle without killing him. "It was considered a highly honored feat of bravery," says Robey Clark of the Northwest Regional Educational Laboratory.*

DIRECTOR'S NOTE

WHEN THE FIRST ISSUE OF *NORTHWEST EDUCATION* HIT MAILBOXES in the winter of 1996, the impact was immediate. Readers raved. Requests for extra copies poured in. We knew we had created a potent forum for the issues educators confront every day in the classroom and parents discuss in their living rooms—topics such as how to meet the needs of language-minority students, How to make education meaningful for middle schoolers. What strategies work best with very young children. How charter schools are altering the face of public education.

In May, the magazine's worth was confirmed when the Educational Press Association of America—a respected, 100-year-old independent professional association for education editors and publishers—named *Northwest Education* the best education magazine in the nation for 1997. Among 1,300 contenders, we had won the association's top achievement award for publications with adult audiences, the Golden Lamp, along with *Technology & Learning*, published by Miller Freeman of San Francisco. Previous Golden Lamp winners have included such outstanding publications as *Teaching Tolerance* (1995) and *Educational Leadership* (1991). Winning top honors this year for children's publications was *Time for Kids*, published by TIME Inc. *Literary Cavalcade*, a publication of Scholastic Inc., won in the young adult category.

"The EdPress highest honor, the Golden Lamp, sets the standard in its field," said Charlene Gaynor, Executive Director of the association, in announcing the awards. "These publications stand as models of excellence in content, quality, and design."

Judges for the annual Distinguished Achievement Awards for Excellence in Educational Journalism included, among others, Casey Banas, education writer for the *Chicago Tribune*; Pam Reynolds, a former editor of *PTA Today* magazine who is now with DePaul University; Robert McClory, associate professor at Northwestern University, School of Journalism; and Yvonne Rodriguez and Barbara Sjostrom, education professors at Rowan University. *Northwest Education* Co-Editors Lee Sherman and Tony Kneidek accepted the award at a banquet in Alexandria, Virginia, on June 13.

Another education group, the National School Public Relations Association, also has honored the magazine with its foremost accolade, the Award of Excellence, for 1997.

THESE HONORS (OF WHICH WE ARE VERY PROUD) CONFIRM WHAT READER RESPONSE HAS SUGGESTED: that the magazine is succeeding in breathing life into educational research. Our premier issue, "The Hispanic Child," touched off a volley of cards and calls from all over the region and from states as far away as Maine. In all, readers requested 1,000 additional copies, while offering comments such as this one from Washington's Othello School District: "The magazine was very well done and very timely for the work our district is involved in." And this from the Language and Diversity Program at the Southwest Educational Development Laboratory: "It is a beautifully done, concise document that can be useful to a variety of audiences."

We have been gratified by the response. Reaching a "variety of audiences" with useful information was exactly what we hoped to achieve when we conceived the magazine. Traditionally, the Laboratory has aimed its products and publications mainly at school administrators and policymakers. But in recent years, we have cast our net wider, hoping to get current research findings into the hands of more classroom teachers (who can use them to better serve kids) and more members of a broader public (who can use them to better understand and support the efforts of schools). This wider casting is a reflection of schools' growing partnerships with parents, human-services workers, businesspeople, and other community members—all of whom will be crucial collaborators for education in the coming century.

We will continue to steer *Northwest Education* by its intended purpose: bringing important studies and reports out of the dark recesses of bookshelves and card catalogs and, in a readable and lively fashion, sharing them with readers who can put their findings to use. Describing what's working in actual classrooms. Showing strategies that are getting good results in schools big and small—from the tiny village of Chiniak on Alaska's Kodiak Island, to the metropolis of Portland in Oregon's Willamette Valley. From Great Falls to Idaho Falls. From Washington's urban Tacoma School District with its 31,500 ethnically diverse students to the rural district of Concrete, which serves fewer than 900 students in the North Cascades. We've even ventured to the Southwest, visiting El Paso and Phoenix to report stories that offer insights of value to Northwesterners.

WE WANT TO INFORM. WE WANT TO INSPIRE. Ultimately, what we fervently hope these pages will accomplish is to make a difference for kids. To help us achieve that mission, we would like to hear your views. This issue includes our first "Letters" department, where we have published letters on our recent "Charter Schools" issue. Your feedback—criticism, encouragement, commentary, input of any kind—is vitally important to us. You may post letters to The Editors, *Northwest Education* magazine, Northwest Regional Educational Laboratory, 101 S.W. Main Street, Suite 500, Portland, Oregon 97204. Or send e-mail to shermanl@nwrel.org or kneidekt@nwrel.org.

If you know someone who would like to receive the quarterly magazine, please send us their name and address so that we may add them to our mailing list. We want to reach people who care about ensuring a first-rate education for every child in the great Northwest.

—Dr. Ethel Simon-McWilliams,
Executive Director/CEO

NORTHWEST EDUCATION

Quarterly magazine of the
Northwest Regional
Educational Laboratory

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NORTHWEST EDUCATION
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This publication is based on work sponsored wholly or in part by the U.S. Department of Education under contract number RJ96006501. The content of this publication does not necessarily reflect the views of the department of any other agency of the U.S. government. This publication was not printed with government funds. Articles and information in this publication are in the public domain and may be reproduced and disseminated without permission. Please acknowledge NWREL as the source.

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Watch for upcoming issues

Winter issue
Parents as Advocates: Mobilizing Support for Schools

Spring issue
Technology for Learning: Effective Strategies for the Electronic Age

Summer issue
Alternative Schools: Reaching Troubled Students

You are invited to send us article ideas,
identify places where good things are happening,
provide descriptions of effective techniques being used,
suggest useful resources, and submit letters to the editor.

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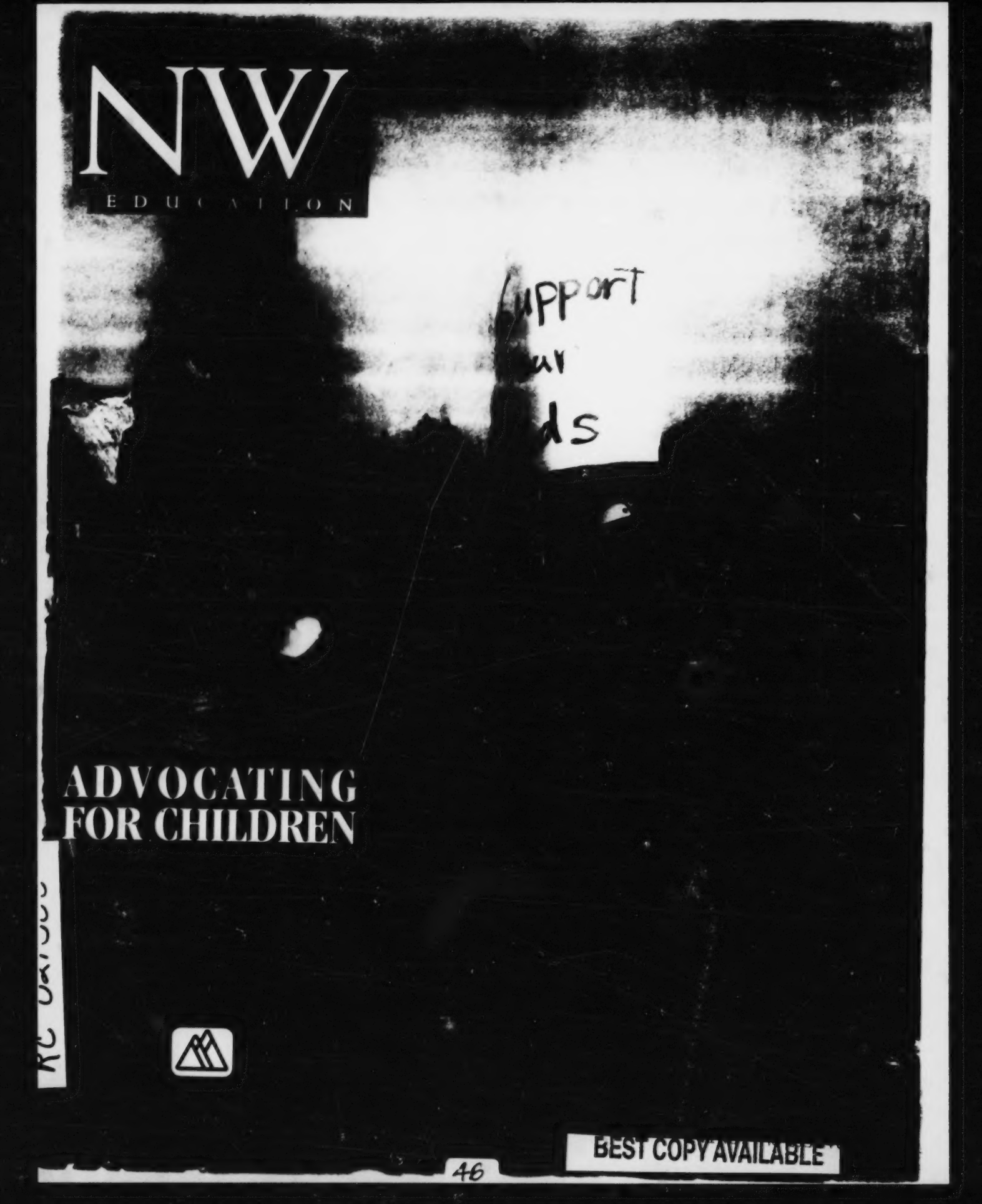

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NW

VOLUME 3 NUMBER 2

WINTER 1997

THIS ISSUE

Advocating for Children

2 Make Room for Families

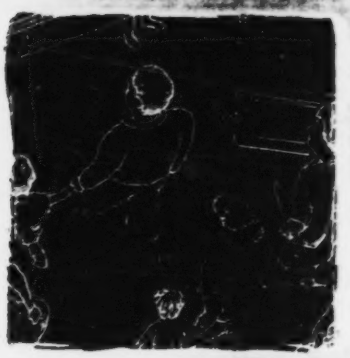
8 A Sleeping Giant Awakens

14 Saving the World

22 Family-Friendly Schools

28 Drums for Peace

32 Helping Troubled Kids



DEPARTMENTS:

35 Supporting Families

36 Parent Power

37 In the Library

39 First Person

COVER PHOTO AND COLORING BY JUDY BLANKENSHIP, PORTLAND, OREGON

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Advocating for Kids

FAMILIES AND COMMUNITIES ARE BUILDING BRIDGES AS THEY REMOVE OLD BARRIERS

There are few decisions more agonizing for parents than to let their children go.

In our family, that process began early. We fretted mightily over the first baby-sitter. We researched dozens of day-care centers before settling on one (then promptly pulled our daughter out when we became dissatisfied with the level of care). Finally, we decided to simplify our lives so one parent could stay home.

But the fretting and anxiety began anew when it was time for our eldest daughter, McKenzie, to enter the public schools. That's when we got involved with a group of parents who were starting a cooperative school in the Portland School District. However, we backed out when we decided that 30 kindergartners were just too many for one teacher. We decided to send McKenzie to a private school where two full-time, certified teachers tended to the needs of 20 children.

The following year, we visited our neighborhood school, but were dismayed to find the walls drab and the leadership uninspired. In one fit of parental hysteria, we even discussed home schooling our children, not out of any deep philosophical commitment, but because we couldn't find the "perfect" match. We did, however, find a magnet school with progressive leadership and innovative teachers where we enrolled McKenzie, who is a thriving third-grader today. McKenzie's kid sister, Maggie, has benefitted from the path we cut and is following in McKenzie's educational footprints.

What I've learned in eight years as a parent is that there is no such thing as the "perfect" match between child and school. What that means, though, is that I must advocate for my children. There are a lot of avenues for doing so. Some are the sweet acts of parenting: Listening to the stories my daughters tell provides insights into how engaged they feel at school, how close they feel to classmates, how inspired the teachers are in their approaches. Helping with homework is another way of engaging myself with my daughter and her classroom. There also are classroom visits to make, committees to volunteer on, kids to tutor, and organizations to join.

But there is a more difficult side to advocating. This occurs when I feel that a classroom practice, a schoolwide activity, or a district policy is not in the best interest of my daughters. These disagreements also must be addressed, and require parents to be aware of and informed about what's happening in their children's schools.

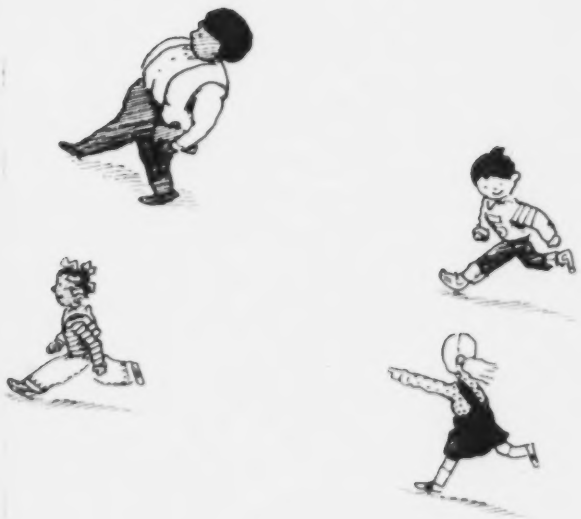
This issue of *Northwest Education* looks at advocating from the smallest unit—the family—up to the regional efforts of that old war horse, the PTA. I hope you find the stories stimulating and the information useful. As always, I encourage you to drop me a letter or send me an e-mail message with your comments and observations.

—Tony Kneidek
kneidekt@nwrel.org

Make Room for SWING THE DOORS

ILLUSTRATION BY KENNY HIGDON

Families WIDE



Few areas of research are so clear: Involve families in their children's education and academic performance will improve.

"Studies show that the extent to which children are ready to learn and to achieve in school depends also on support from families, with greater family involvement in children's learning identified as a critical link to achieving a high-quality education in a safe, disciplined, learning environment," notes the National Center for Education Statistics (NCES) in a report, *Parents and Schools: Partners in Student Learning*.

Yet many schools across the nation pay lip service to family involvement or point to an annual open house, semiannual parent-teacher conferences, athletic events, and other minimal offerings as their efforts to involve families. Still other schools encourage families to get involved in their kids' schooling, but offer few avenues for participation, few guidelines for parents to follow, and few tips to the myriad ways families and communities can be involved. And teachers, whose schools of education paid little attention to family involvement, have few skills to know how to effectively engage the parents who want to volunteer in the classroom or those who want to play a more active role from their home.

A recent poll conducted by the U.S. Department of Education and the GTE Foundation found that schools can do much more to foster parental involvement. Nearly 90 percent of those surveyed said their children's schools "treat them as important partners in encouraging their children to learn." However, more than three-fourths of the respondents said that teachers need additional training in involving parents, and only about 40 percent said that teachers share examples of students' successful work. In addition, fewer than 30 percent said their schools provided a place for parents to meet.

The issues that surround family involvement in the education of children are complex, challenging, and formidable. The makeup of America's classrooms has changed dramatically since the 1950s and '60s. Today, cultural, ethnic, and social diversity reaches into classrooms from Boring, Oregon, to New York City. This diversity brings with it a richness of ideas and histories that

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provide new learning opportunities for both children and their families. It also brings with it new challenges for teachers, administrators, and communities.

"Schools need to establish clear school and district policies on family involvement and reach out to all parents on a continuing basis, providing personal contact, literature, and classes on parenting, literacy training, and parental resource centers," note the authors of *Strong Families, Strong Schools: Building Community Partnerships for Learning*, a 1994 report from the U.S. Department of Education.

But the responsibilities cannot—and should not—fall on schools alone. The American family is changing, and more and more children are being raised in poverty, in non-English-speaking families, and in single-parent households. The Children's Defense Fund reports that the poverty rate for children with parents under age 30 has more than doubled since 1973 to 41 percent, and that the wages of young families have declined by 33 percent over the last two decades.

"If the fruits of economic growth had been shared equally among all families over the last 20 years, then the typical young family with children would have seen its income rise by 15 percent instead of falling by 33 percent," says CDF President Marian Wright Edelman. "Strengthening the economic future of young families with children must become a priority."

Diverse Culture, Diverse Approaches

Cultural diversity in our country brings with it a responsibility to find new ways of reaching out to parents who are uncomfortable with approaching teachers or unaware of ways in which to work with their children's schools. The needs of children reach across the social spectrum, and can only be met in a unified effort that involves schools, health agencies, the business community, law enforcement, the judicial system, religious organizations, social services, and those silent citizens who live and work in the towns and cities across America.

Such a commitment brings with it a strong need for staff development focusing on issues of family involvement and cultural awareness. "There is little question that the support a child receives in the home becomes the foundation for success in school," note the authors of *Model Strategies in Bilingual Education: Family Literacy and Parent Involvement*. "Improving the amount and quality of parent involvement in children's education remains a continuing challenge. This is particularly true for economically disadvantaged parents, who often have had unhappy experiences in school and may feel ill-equipped to help their children negotiate the educational environment that the parents perceived as alien or threatening to them."

While the cultural landscape of America has changed dramatically in the last quarter-century, it has only been in recent years that schools and other institutions have taken on family involvement as an issue of equity. "Although families with school-age children have become increasingly diverse, in terms of culture and language, until recently, the connections between cultural diversity and family education received scant attention," note Heather McCollum and Alexander W.W. Russo in *Model Strategies*. The report profiles nine exemplary sites that exhibit a wide range of parent involvement and family literacy programs. Five sites are bilingual programs—four of them teaching Spanish speakers and one serving Navajo families. The programs shared several common features, including:

- Creates opportunities to develop literacy in a natural context—in most cases, the mother and child together—and provide direct services to both
- Attempt to address the long-term needs of the child by serving the short-term needs of the whole family
- Help parents understand the demands of U.S. schools and equipping them with the skills to be their child's teacher and advocate
- Provide English-language instruction and other services to the parents to enable them to participate more actively in their communities

Child Trends, an independent nonprofit research firm, notes that the connections between mother and child in literacy and education reform efforts points to another need: providing services to both children and adults. A study that involved nearly 800 families receiving welfare in the Atlanta, Georgia area revealed that young children (three to five years old) living in poverty scored low on tests of vocabulary and school readiness.

"Some of the families in the Atlanta study—like some

Based on Joyce Epstein's six categories of partnership activities, a comprehensive program of partnerships will include such elements as:

- Parent education and family support
- Family members and community members acting as volunteers in the school
- Home-school communication
- Strategies that foster children's learning at home and in community settings
- Decisionmaking and governance mechanisms
- Myriad kinds of school-community exchanges

AFDC families nationwide—are highly disadvantaged and may need special assistance as part of welfare reform," Child Trends notes. "In addition to the children's poor performance on tests of school readiness, more than half the mothers in this study have low reading and math skills, and 42 percent report symptoms that place them at risk of clinical depression. These are potential obstacles that should be considered by governors, members of Congress, and others whose welfare reform proposals include rapid job placement for welfare recipients."

Fathers' Role Gaining Importance

Fathers, too, must become more involved in the lives of their children. A study by the Department of Education found that children do better in school when their fathers are involved in their schools. Fathers, the study notes, can be a positive force in their children's education, and when they do get involved, their children are more likely to get mostly A's in school. The study, part of the NCES 1996 National Household Education Survey, also shows that fathers in two-parent families are less likely than mothers to be very involved in their children's schools.

Overall, children in two-parent families where the father is highly involved get better grades, enjoy school more, and are less likely to repeat a grade, compared with those in which only mothers are highly involved. However, fewer than 30 percent of the fathers in two-parent families were highly involved in their children's education, compared to 56 percent of the mothers, the report notes.

The NCES surveyed 16,910 kindergartners through 12th-graders in its study, which resulted in a report, *Fathers' Involvement in Their Children's Schools*. The study found that mothers and fathers are more likely to be highly involved when schools welcome parents and make it easy for them to be involved. Parental involvement is higher if classroom and school discipline are maintained and if teachers and students respect one another.

The findings about fathers are especially significant because their roles in their children's education have been overlooked in research. In the past, it was primarily the role of the mother that was considered essential to improving student success. Other findings include:

- Children who live in single-parent families headed by fathers are twice as likely to get mostly A's if their fathers are highly involved at school (participate in their child's school four or more times a year), compared to those who have little or no involvement.
- Highly involved custodial fathers make a significant difference in their children's learning, particularly for children in grades six and above. Their children are much more likely to get A's, enjoy school, participate in extracurricular activities, and are less likely to repeat a grade. However, only 31 percent of custodial fathers participate in any school activities.
- More than half of the fathers of K-12 children participate at their children's school at moderate (two activities per year) or high (three or more activities per year) level.

"This study tell tells me that if America's Dads got as involved as America's Moms in their children's education, America's children would be studying harder and getting a lot more A's," said U.S. Secretary of Education Richard Riley. "Dads make a powerful difference in defining expectations and challenging children to do their best."

However, many children live in homes where the father is absent. According to 1994 Census Bureau data, 39 percent of children under 18 live apart from their biological fathers. Furthermore, close to 50 percent of children in disrupted families hadn't seen their fathers at all in the past year, a 1991 survey by the National Commission on Children revealed. And nearly 20 percent of children in female-headed families hadn't seen their fathers in five years. While divorce and out-of-wedlock births are two primary causes for children living in households without fathers, another reason for physical absence is incarceration: Bureau of Justice Statistics report that in 1994 nearly 800,000 dads were in prison.

Broad Approaches Needed

"Although the family's role in children's learning is as important today as it was 30 years ago, the circumstances affecting family life have greatly changed," notes *Strong Families, Strong Schools*. "To overcome these challenges, we need to support family involvement; we must foster a partnership among parents, children, teachers, schools and the community to improve learning. Getting families involved is not easy. It will require hard work and changes in attitudes."

In a research synthesis, the North Central Regional

The National PTA has published the National Standards for Parent/ Family Involvement Programs. The six program standards include:

- Communicating—Communication between home and school is regular, two-way, and meaningful.
- Parenting—Parenting skills are promoted and supported.
- Student Learning—Parents play an integral role in assisting student learning.
- Volunteering—Parents are welcome in school, and their support and assistance are sought.
- School Decisionmaking and Advocacy—Parents are full partners in the decisions that affect children and families.
- Collaboration with Community—Community resources are used to strengthen schools, families, and student learning.

Educational Laboratory (NCREL) notes that factors contributing to low levels of participation among different ethnic or culture groups must be addressed by educators. Factors such as bad experiences with schools, general distrust of institutions, language barriers, a traditional deference to education, and a cultural approach that says it is disrespectful to question teachers all can work against involvement by minority parents.

"Often what is interpreted as a lack of interest or caring is, instead, a cultural predisposition to interpret help at home with interference and disrespect for the teacher," NCREL notes. "Once parents became aware of the need to help their children at home and were given a set of strategies to follow, they were quite willing to help."

There is a strong research base stretching three decades that supports family involvement as an avenue to improved student learning and other desirable outcomes. "A significant body of research indicates that when parents participate in their children's education, the result is an increase in student achievement and an improvement of students' attitudes," notes NCREL. "Increased attendance, fewer discipline problems, and higher aspirations also have been correlated with an increase in parent involvement."

However, research has not looked into the various forms of parental involvement with an eye toward assessing which is most likely to strengthen student achievement. Schools, though, generally focus their efforts around two major approaches:

1. Encouraging parents to pursue behaviors in the home that encourage learning and indicate a value for schooling.
2. Conducting activities at the school that support the teacher-parent relationship.

In 1996, the NCES surveyed 810 public elementary schools to determine the types of activities schools sponsor to encourage parental involvement, the amount of parent participation in those activities, and the extent to which parent input is considered in decisionmaking related to school issues.

While the NCES survey found that the vast majority of schools—84 to 97 percent—held activities such as open houses, parent-teacher conferences, art events, sporting activities, and science fairs or other academic events, far fewer involved parents in decisionmaking.

"At the other extreme, parents have little say in decisions regarding the monitoring and evaluating of teachers, with 74 percent of all schools indicating that parents have no say at all in this process," the NCES survey found. Likewise, few schools (20 percent) reported involving parents in decisions about allocating funds or selection of library books or materials. In four other areas—curriculum or instructional program, the design of special programs, discipline policies and procedures, and health-related topics or policies—fewer than 14 percent of schools reported considering parent input to a great extent, and between 34 and 38 percent of schools reported considering it to a moderate extent.

The NCES survey found a correlation between income level and family participation in school-sponsored activities. In general, as family income levels declined, so did family participation. "One of the most striking differences in parent attendance at school-sponsored events was linked to the poverty status of the school," write authors Nancy Carey and Elizabeth Farris. "In general, as the poverty status of the school increased, reports of high parent attendance decreased significantly."

Similar relationships were found when the percentage of minority students enrolled in the school was taken into account: The higher the percentage of minority students, the lower the percentage of families participating in school-sponsored events. However, minority enrollment and a school's poverty status were highly related, with 87 percent of schools with high minority enrollments also categorized as high poverty schools.

While poverty does appear to play a role in family involvement in the schools, neither the financial status of the family nor their level of education are determining factors in student success. In its 1994 report, *Strong Families, Strong Schools*, the Department of Education concluded: "Studies of individual families show that what the family does is more important to student success than family income or education. This is true whether the family is rich or poor, whether the parents finished high school or not, or whether the child is in preschool or in the upper grades."

Other findings in the report, which is based on a review of 30 years of research, include:

- Three factors over which parents exercise authority—

Ways in which families can support children's learning

At home:

- Read together.
- Use TV wisely.
- Establish a daily family routine with scheduled homework time.
- Talk to your children and teenagers—and listen to them, too.
- Make sure your children go to school.
- Monitor out-of-school activities.
- Communicate positive values and character traits.

At school:

- Express high expectations for children by enrolling them in challenging courses.
- Keep in touch with the school—don't wait until a problem arises.
- Work in partnership with your child's teacher.
- Find out whether your school has high standards.

Ways in which schools can support family involvement in education:

- Learn to communicate better
- Encourage parental participation in school improvement efforts
- Involve parents in decisionmaking
- Give teachers the tools to reach out to families
- Make parents feel welcome
- Overcome language barriers
- Use techniques to link parents to the classroom
- Encourage communities to join school-family partnerships

student absenteeism, variety of reading materials in the home, and excessive television watching—explain nearly 90 percent of the difference in eighth-grade mathematics test scores across 37 states and the District of Columbia on the National Assessment of Educational Progress (NAEP). Thus, controllable home factors account for almost all the differences in average student achievement.

- The single most important activity for building the knowledge required for eventual success in reading is reading aloud to children.
- Although math and science performance of American students on NAEP and math scores on the SAT have shown improvement in recent years, NAEP reading scores and SAT verbal scores have remained flat. Reading is more dependent on learning activities in the home than is math or science.
- International comparisons show high academic success of students from Asian countries, which may be attributed to the priority their families give to education.

Child Trends reported that the percentage of children watching television for six or more hours a day declined between 1986 and 1992 for children of all ages. For nine-year-olds, the percentage dropped from 31 percent to 19 percent; for 13-year-olds, it declined from 20 percent to 13 percent; and for 17-year-olds it dropped from 9 to 7 percent. In each group, Child Trends reported, Black students were more likely to report watching television for long hours than were White or Hispanic students. Television viewing declined for children between 13 and 17 years whose parents had graduated from college.

A majority of children between the ages of three and five have parents who read to them or tell them stories on a regular basis. In 1993, 64 percent of parents participated in these activities routinely. However, Child Trends also reports that fewer than half (44 percent) of fourth-graders and less than a quarter of eighth- and 12th-graders (22 and 23 percent, respectively) say they read for fun on a daily basis.

A Democratic Process

Developing effective partnerships requires attention to some of the essential elements of democratic process such as recognizing different interests, respecting all participants, and respecting minority viewpoints. Conflict resolution, mediation, negotiation, and compromise also are necessary skills in a democratic process.

"A good place to start is for schools to bring together teachers and other educators with families, students, and community representatives to discuss and agree on mutually important goals for children, schools, and the community and then to make collaborative plans to achieve them," notes the Department of Education in a report, *Building Partnerships*.

"Building a partnership does not mean educators and other professionals must give up their roles as experts. It means recognizing that parents have expertise about their own children." ■

A SLEEPING **GIANT** AWAKENS

BY MAYA MUIR

The liveliest spot on Alaska's Kodiak Island on Friday nights is the middle school gym, where Filipino, Asian, Latino, and Caucasian 12- and 13-year-old kids devour nachos, gab, and listen to music for two hours under the watchful eyes of Robin Cassidy, PTA President.

"I guess it's one of our main PTA programs," Cassidy reflects, sounding almost surprised. "It's a warm, safe, clean place. Kids—usually over 100—that come stay the two hours we're open, and their parents know where they are."

Kodiak is a small, remote island where one-third of the children qualify for free or reduced-cost lunches. Children of workers at the fish canneries and the naval base attend elementary schools where, because of geography, they are separated by race. Funneled into one middle school, they create a melting pot that occasionally bubbles with hormonal tension.

Where wholesome alternatives are limited, the PTA Friday Night Live programs provide space for kids to have fun and get to know one another.

Cassidy, who is also an Alaska PTA Vice President, is typical of the new generation of PTA leaders in the Northwest: She's an advocate for children who responds creatively to kids' specific needs in her community.

The National Congress of Parents and Teachers was founded 100 years ago as a feisty advocacy group that fought hard to establish public kindergartens, a national health bureau, and better marriage, divorce, and child labor laws. Its threefold mission was to speak on behalf of children, to help parents develop the skills they need to take care of their kids, and to encourage public involvement in public schools.

But in the years between 1960 and 1990, PTAs lost their edge. Membership plummeted. In Montana, alone, numbers fell by two-thirds.

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"Now PTA is coming full circle back to its original mission, and coming into its own as an advocate for all children," says Martha Rice, Legislative Chair for the Lewis and Clark Middle School PTA in Yakima, Washington. "We still struggle with the 'cookies and carnivals' mentality, but that is slowly changing."

Dian Anderson, President of the Oregon PTA, agrees. "At our trainings, we tell people we're not the fund-raising arm of the school. They say, 'We're not?'

"So things happen differently now. In Springfield recently, a school in a poor neighborhood badly needed a playground," Anderson says. "In the past, everyone would have expected us to raise the money. Instead, PTA involved the whole community, including the Parks Department, businesses, and the city. PTA members were the thinkers, but they weren't, themselves, the money."

Paula Pawlowski, President of the Alaska chapter, has a "three-to-one rule" that she applies to fund-raising efforts. For every single fund-raising event, the PTA sponsors three enrichment programs. Otherwise, she fears, they'll become a coffee-klatch organization again.

Pawlowski's interest in PTA was originally sparked by former national President Joan Dykstra's challenge to local units to make school equity their issue. "You can't have the PTA in one neighborhood raising money for a fantastic playground when a few miles away you have a school that has none," says Pawlowski. "Money should only be raised to help you achieve your goals—which implies that you have to set them. Not everybody is comfortable with this advocacy approach, but those who are, often end up as PTA leaders."

The threats to children requiring advocacy have, of course, changed a great deal since 1897. "For one thing," notes Dian Anderson, "we've had to become advocates on behalf of public education—to actually defend the concept. There's been a trend from the conservative right in the last few years to attack it in a variety of ways."

Anderson believes the move toward charter schools and vouchers falls under this heading. "Public dollars belong in public education," she says, "and these are ways to siphon off money for private schooling."

Idaho PTA, whose members are creating a marketing plan for public education, faces similar issues. In Twin Falls, parents who home school want to start a charter school with limited enrollment, which sounds a lot like a private school to PTA president Brenda Miller. "All schools should have the choice to do what's best for their community," argues Miller, "but there are ways to do that now within the system, with waivers, site-based councils, and so on."

Yet even for parents who do believe in public schools, involvement may be difficult. With many mothers working and more single parents, time to participate in their children's education becomes a luxury fewer parents can afford.

In addition, schools today draw children from a rainbow of ethnicities. In Yakima, Washington, for example, half the population has ethnic and cultural roots outside the mainstream, mostly Hispanic. In other areas of Washington, recent waves of immigration from the fractured Soviet Union and from Asia have brought populations that, according to Michelle Anciaux, Parent Involvement Coordinator for that state, "haven't had the experience of joining in organizations like PTAs, and may not share the ethic of volunteering."

In Yakima last year, PTA tailored programs to interest Hispanic parents. The programs addressed drug and alcohol abuse and prevention, gang involvement, and self-esteem. Events were translated, and attendance and participation were good. From time to time, bilingual Hispanic parents have also joined the PTA board, but, says Rice, "we still have quite a ways to go."

All PTAs in the region struggle to make involvement easier. In Oregon, Anderson is working on breaking tasks down. The PTA holds as few as four or five meetings a year, all featuring speakers who address community needs.

In Alaska, Pawlowski has taken unusual steps to fit in with parent schedules. "Evenings are too busy," she says. "We meet at 6:45 a.m. over coffee and donuts, and we keep it short. It works—we've had to bring in extra chairs." Pawlowski conducts board meetings on a chat line or by teleconferencing, and communicates by e-mail with units around the state. She uses the PTA newsletter as an educational forum to discuss issues that once might have taken up meeting time.

Interest in PTAs is rising, but many local units still struggle to find the best ways to draw in overextended parents. Some employ strategies like giving out "warm fuzzies" that one official referred to unofficially as bribes.

Washington's Anciaux recommends a different approach. "If you build a credible organization and provide services that instill a sense of value, people will join," she says. The Washington PTA is the only one in the region to have a paid staff member; Anciaux works full time to draw parents in. Her committee offers seminars on advocacy to local PTAs and other organizations, and holds an annual summit for parents, students, educators, administrators, businesses, and others. Participants develop concrete ways in which parents can intervene to secure the kind of education they desire for their children.

PTAs in the Northwest have also collaborated with schools to create onsite Parent Resource Centers. There, parents can browse through books and other resources on parenting, find activities for the whole family, or take classes. "In Missoula, the centers tend to be located in lower-income areas," says Jean Curtiss, Montana PTA President. "Parents who won't cross the school threshold for anything else come for that."

New forms of parental involvement have also been a component of educational reform measures percolating through the Northwest. These reforms have been most sweeping in Washington and Oregon, where statewide standards for performance-based learning have been instituted. In addition, site-based management councils have been formed to include teachers, parents, and other sectors of the community in decision-making on school policy, including curriculum and hiring—although the power and influence of the councils is not always clear.

After participating in a school site council for two years, Laurita Barth, PTA Regional Director for Oregon's Lane and Douglas counties, describes them as "wonderful." Says Barth, "We had good parent involvement and equal representation."

Surveying the statewide picture in Oregon, Anderson is less enthusiastic. "Here, they are required to have only one parent per council, although many schools choose to increase that, and many members are involved," says Anderson. "When well run, site-based councils can be positive; otherwise, they become a vehicle for the school principal."

The Washington PTA was involved in reform from the beginning. When statewide school improvement measures were being discussed in the Legislature, PTA led focus groups around the state to discuss them.

Taking an up-front, visible, advocate's role is not always easy or comfortable. "In the process, we got slashed by a very well-organized opposition," says Carol Lockett, Washington PTA President from 1993 to 1995. "These people were convinced that 'performance-based' education meant a dumbing down of instruction, when the whole purpose of it was to expect more and get more from our kids. When these people were in the audience, we got nowhere; elsewhere we had good discussions with parents."

Parental involvement was Lockett's passion during her presidency. "During our annual convention in 1993, the Legislature was voting on (educational) reform," she says. "We had cell phones available for delegates to call their representatives. It was the most exciting thing I'd ever seen. When the governor signed the bill, he gave the pen to our president, acknowledging the astronomical amount of work we did to bring that about."

Education reform legislation in Washington has transformed the ways in which schools do business, and the ways in which parents and others interact with schools, Lockett says. "There's been a groundswell of interest among parents. They feel the doors are finally open to them, and teachers who never knew how to involve parents are finally getting trained."

In Alaska, instead of sweeping legislative reform, smaller initiatives by the governor and the Alaska Coalition for Education are being discussed. Meanwhile, site-based councils have been voluntarily adopted by several districts. Pawlowski finds they've worked better for teachers and principals than parents. She agrees with Oregon's Anderson that in the hands of a strong principal, councils are reduced to puppet organizations.

Pawlowski prefers the research-based Joyce Epstein model, which conceptualizes six types of parental involvement: collaborating in the community, volunteering, parenting, communicating, decisionmaking, and learning at home. It offers a framework for evaluating how effectively the PTA is intervening in each of the six areas. Districts or schools may adopt this model, which counts the Juneau School District among its adherents.

PTA in Alaska is also becoming involved in teacher evaluation. A new state law requires more stringent evaluations that include parental input. At the same time, a new licensing system is being developed that will also involve parents. These measures have been controversial, but PTA has taken the lead on several fronts. In Anchorage, for example, the PTA proposal was the basis for the new evaluation system adopted.

In Idaho, the state education board and the Legislature are looking at creating exiting standards. "Much of the leadership in the state is leery that national standards might be imposed on us," says Brenda Miller. "And the PTA is leery of standardized state testing. We want other aspects of a child's performance evaluated, too."

Optional in Idaho, site-based councils have been adopted in some cities like Boise, but less often in rural areas. The state PTA supports councils, but hasn't been active on the issue. However, several local PTAs were instrumental in applying for federal money to set up innovative schools stressing computer use. The Pioneer School in Meridian boasts five computer terminals in each classroom, and Internet access from third grade on. The school, with PTA blessing, is also experimenting with a year-long calendar.

In Montana, a move toward uniform standards, backed by the governor and superintendent of public instruction, was defeated in the Legislature, despite wide disparities across the state. Site-based councils have been voluntarily adopted by some districts and schools, but hold little power, says Jean Curtiss. However, Montana—with PTA assistance—leads reform in developing an integrated approach to teaching math.

Although the extent of reform varies over the region, securing adequate funding remains high on everybody's agenda. "It requires constant vigilance," says Pawlowski. Equity continues to be a major concern for the Alaska PTA. "When I visit schools in the bush here, and they have no flush toilets, I know we can't lobby for more money for urban schools until we have necessities everywhere," Pawlowski says.

Most Northwest PTAs actively lobby their state legislature and publicize local levies for funds for education. "We don't like cuts no matter what they are," says Oregon's Barth. "We're advocating for children and we don't go away."

Funding cultural enrichment programs has long been a staple of PTA activity, and remains so today. But as school budgets shrink, some units are feeling pressure to fill the gaps. Parents are asking themselves how much of the fund raising burden should fall on PTA shoulders. They also are questioning whether fund-raising activities should pay for essential programs.

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In Juneau, for example, at least $5,000 of the elementary school PTA budget funds a "Naturalist in the Schools" program to supplement the science curriculum. Many parents, though, argue that the district should bear the cost, says Wendy Cwiklinski, past President of the Auke Bay Elementary PTA. Pawlowski agrees: "If we are asked to pay for the buses for a school trip, we have to ask if the trip is a necessity or an enrichment. Making the distinction isn't easy, but necessary trips should be paid for by the school."

With funding cuts, PTAs and other organizations have become creative at finding other ways to bring resources into the classroom. Grants and gifts are two options. Commercial sponsorships are also increasingly appearing, but they alarm some parents. Brita Butler-Wall, parent of a Seattle eighth-grader, became concerned in 1996 when her district resolved to sell advertising space inside schools. Butler-Wall raised the alarm, and the Seattle PTA lobbied against it. Although the school board had already approved of advertising in the schools, the decision was quickly rescinded when parents voiced opposition.

Meanwhile, the PTA had gained a reputation as an advocate on the subject. When the superintendent of schools wanted an audit of advertisements already in the schools, he turned to the association for help. "We found the schools already full of commercialism," says Butler-Wall. "The environment is very attractive to advertisers; kids are a captive audience there."

Of particular concern to Butler-Wall is Channel One, the broadcast program that provides TV monitors to schools in exchange for the promise that 90 percent of students will watch their daily 12-minute programs containing two minutes of commercials.

Observing in her daughter's classroom, Butler-Wall noted that the teacher didn't watch with the kids, or teach about the material. "There were 25 eighth-graders who mostly ignored the program, but all their little heads swiveled around to watch when the ads came on," says Butler-Wall. "It doesn't make sense to advertise sneakers costing $140 to poor kids, or worry about kids having off-the-wall energy and then flash ads for Pepsi at them."

Butler-Wall is sympathetic with teachers who, strapped for resources, accept materials offered by commercial sources. "But," she says, "most parents are unaware that the teachers use these things without being critical. I saw lesson-plan material published by a major candy manufacturer in which the food pyramid was topped by chocolate!"

Other districts have been concerned with how children are effected by television. The national PTA produced materials on critical viewing for parents, which several PTAs have circulated.

In Montana and Oregon, ballot initiatives for "Parental Rights and Responsibilities" alarmed parents. "It's essentially the right to sue over just about anything," says Anderson. "If teachers expressed concern about potential child abuse, they could be sued. If a school didn't offer a class someone wanted, they could sue. It would undercut all existing procedures." PTAs took stands against this initiative, and the measure was defeated.

The Oregon PTA adopted a controversial measure several years ago against discrimination on the basis of sexual orientation. The state PTA lost a few members, but Anderson finds that the controversy clarified the organization's values. "Now we automatically know we can't support any legislation that discriminates," she says.

Montana PTA fought until 1991 to make spanking in schools illegal, only to have it proposed again last year. With PTA on the front lines again, the measure was defeated.

Also in Montana, the PTA helped institute sexuality education; more recently it worked to bring education on AIDS/HIV to the community as part of the health curriculum. The Idaho PTA Health and Safety Committee has also tackled this issue with a five-year project to educate parents inside and outside the PTA about HIV.

Safety concerns all parents, but the threats to children come from different sources across the Northwest. In Idaho, in addition to HIV, concerns for safe school crossings and busing loom large.

In Montana, the PTA and state superintendent collaborated on a "Kids Council on Good Character," a forum to learn what children thought about good character and encourage them to adopt values that will keep them safe. Nearly 600 students from grades three through eight across Montana were involved, and some were chosen to write public service announcements for TV and radio.

Ann Bisgard, chair of the Washington PTA Safety Committee, reports that safety hazards vary widely even across her state. "Here in Walla Walla, programs on irrigation pipes, combines, and electric fences would be a hit; not so in Seattle," she says. Rather than develop a new set of programs, Bisgard coordinates and publicizes information on existing resources.

Dangers in Alaska arise from coping—inside and outdoors—with severe and extended winters. "Because we spend nine months inside every year, and our buildings are so well insulated, we have tremendous problems with indoor air quality as well as with wood smoke outside," notes Pawlowski. The PTA recently sent a representative of its Health and Safety Committee to Washington, D.C., for training in U.S. Environmental Protection Agency issues such as air and water quality.

"We also have one of the highest rates of tobacco and alcohol use, and there's a problem with sniffing—usually gasoline—in the bush," Pawlowski says. "We need to educate about these things village by village where we often don't even have PTAs. Snow machines and four-wheel vehicles, necessities out there, present hazards, too. And hypothermia is a real danger."

Bonnie Schaeffer, first Vice President of the Alaska PTA, lives in the tiny hamlet of Kotzebue, south of the Brooks Range. "Last year we had our main street paved here, and now everyone walks, plays, and rides bikes there," she says. "We'll have to educate people about how to cross the street safely."

From Kotzebue to Klamath Falls, the PTA in the Northwest is gaining membership and momentum again, and tackling ever broader issues, including the reform and funding of education, commercialism in schools, and threats to children's safety. Parents are returning to the PTA because they find it an effective forum to fight for their children's needs, one that combines national support with the flexibility to adapt to local conditions, note PTA leaders and members.

On Kodiak island, Cassidy surveys the shifting scene of preteens on the gym floor. She remarks that the local high school has no PTA. Soon, however, her child will be graduating from middle school. "I guess we'll have to start a high school PTA then," says Cassidy. "This group of parents has learned too much to stop now."

Maya Muir is a Portland-based freelance writer and editor. ■

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Saving the World

One Child at a Time

Story by Shannon Priem

Photos by Judy Blankenship

Forever is a long time. Longer than a child of poverty or neglect can imagine. Longer than most programs designed to help children usually last. One program, however, is making a promise that raises the hopes of children by linking them with a long-term mentor.

❦

Zachary Harris eases his white Jeep to the curb in front of Bobby's house, and gives two short blasts on the horn. Bobby, a sixth-grader in Portland, Oregon, is already bounding down the steps in his oversized coat, a coat that probably fits the six-foot-two-inch Harris.

"Hey, where's your shirt?" Harris calls out the car window.

"Couldn't find it," says Bobby, as he slides in and buckles up. "Our lights went out and I couldn't find the flashlight to look for it." The grin seldom leaves his face.

He's off the hook this time. The shirt in question is his "Friends" shirt. Bobby and Harris have been good buddies for more than three years. It's taken about that long for Harris to gain Bobby's trust. They'll be together for a long, long time.

Ten years, at least. And if Harris has his way, they'll be friends forever.

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Friends of the Children began in 1993 with a $1 million gift and an ambitious mission: to create lasting and positive adult relationships in the lives of troubled children.

In that first year, Friends served 24 children. Today, it links nearly 200 children with a caring adult in 32 schools in the Portland metropolitan area. A recently launched pilot program in Washington, D.C., serves an additional 30 children.

The program has attracted funding partners including the Meyer Memorial Trust, U.S. Bank, the Heron Foundation of New York, the Hasbro Foundation, and Multnomah County—groups that bank on Friends helping troubled children through intensive, early intervention.

Friends' costs—$14 per day per child—are minimal when compared to the cost of foster care ($12 to $50 per day); juvenile detention ($125 per day); and alcohol or other drug treatment ($130 to $150 per day). The 23 full-time, paid mentors in the Friends program each mentor eight children. The commitment of the Friends program is to the child: If a mentor leaves early, the child is assigned a new mentor to fulfill the 10-year obligation.

The program began as the brainstorm of the Campbell Institute, a nonprofit research organization that develops support programs for children. Its primary mission is to support Friends of the Children. Portlanders Duncan and Cindy Campbell endowed $1 million to start the Institute and to help answer the question: "If you could do just one thing to help children, what would that be?" Duncan Campbell, who grew up as the son of alcoholic parents,

had gained an appreciation for the value of caring adults. He recruited old friends Mike Forzley and Orin Bolstad to help create the foundation for Friends. Bolstad did much of the research into resiliency and risk theories before moving on to other work.

"In 1967, Duncan and I were working in Juvenile Court in Portland," recalls Forzley, director of strategic planning for Friends of the Children. "We shared a unique passion for kids and knew there had to be a better way to reach them. We vowed then to make a difference."

Campbell and Forzley went separate ways for the next few years. Campbell earned his wealth in the timber investment business, but stayed active in children's issues by serving on boards and commissions such as Children First for Oregon. He also was chairman of the Juvenile Services Commission in Multnomah County. Forzley has a long history of working with urban children and served as a teacher, counselor, and administrator in the Portland Public Schools. He established several businesses, including the national children's newspaper, *The Young American*.

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"Bobby, you know why we're going bowling today?" Harris asks. The boy hasn't stopped chatting since he hopped in the car.

"He knows," Harris laughs, flashing a broad grin to the visitor in the back seat. "He earned this because of school. I'm proud of you, man."

Bobby is on his way back into a "mainstream" sixth-grade classroom. He's smart and he can handle it. He also knows it's up to him to succeed. No more acting out. Bobby and Harris walk toward the bowling alley, arms around each other. Bobby breaks away and scrambles up the steps to open the door for his guests, cautioning them to watch their step.

Harris grins, holding his hands up as if to say, "I didn't ask him to say that."

"You wouldn't believe this kid four years ago," Harris says. "Angry. Everything was me, me, me. Took me two years to earn his trust. But that's okay. I got time. A teacher has only nine months to make something happen. I've got 10 years."

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Resiliency research shows that children need a positive relationship with an adult in their lives. "That adult," says Forzley, "needs to have a long-term commitment to the child." Such a commitment is critical, he adds, when working with youth who come from troubled backgrounds, the very kids Friends seeks to work with.

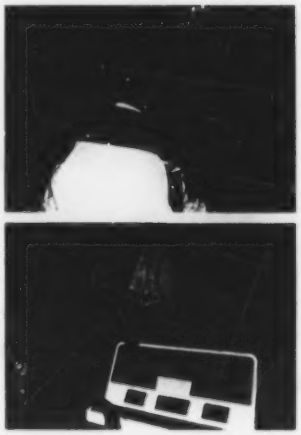
"We decided to go for the kids who needed help the most," Forzley says. "Some of our kids are buried so deep in the clutter of violence, it's hard to find them."

Too often, these kids—dangling on that fragile edge of success or failure—only get attention when they fail in school or surface as victims of abuse and neglect. That's when Friends works with schools to find children who are at risk of educational failure.

Forzley lights up when talking about "his kids." The commitment to Friends seems as fresh as the day he graduated with a Master's degree in urban studies from the Consortium of Colleges and Universities in Chicago. Forzley, degree in hand and idealism burning, was ready to save the world—or at least the kids living in the projects of South Chicago where he began his lifelong work with troubled children.

"Traditional programs don't find these children," he says. "You have to lay on the living room floor with them. Imagine, suddenly an adult shows up simply to love them, and they begin to believe, they see another side of life they only saw at a distance. We found one boy and his mother, literally huddled in a garage." They sneaked in to go to sleep, Forzley recalls.

"Two years later, after he was in the program, he came in carrying a violin case, asking me if I knew what was inside. He opened it with such care. Those kids are doing things now we never even dreamed of. I've got hundreds of stories, but the bottom line is so important—and that is if you want to save the world, you have to do it one child at a time."



"Gutter ball" Bobby yells to his friend Harris.

"Hey Bobby, you're supposed to give me encouragement, like 'nice try.'"

"Okay, nice try— GUTTER BALL!" Bobby dissolves in laughter, happy to have the last word when Harris laughs, too.

Bobby's had his share of gutter balls today, but he's taking it in stride. "That ball didn't like me," he says. "It won't give me a strike." Bobby finds another ball, and sure enough, he gets a strike. "Told you I needed another ball. That thing weighs more than I weigh."

"Another thing about Bobby," Harris says. "He is so funny!"

It wasn't always that way, Harris confides. "Two or three years ago, this would have never happened. He went bowling and hated it because he saw himself failing. Now he sees us having fun and dealing with gutter balls. It helps him learn about vulnerability, not always having to win; little life skills that kids like Bobby don't always get."

The game was close. Bobby came in second. Time for a hamburger. On the ride back Bobby is leaning toward Harris. Time to leave, but Bobby's trip up the steps to grandma's house this time is much slower.

"I love my boys," Harris says softly, driving away. "Precious boys."

Bobby and Harris have walked through college campuses, gone to ball games and movies, taken golf lessons. Their affection for each other is obvious. Harris contemplated leaving Friends once for another love—the music business. He was doing well as a writer and producer of Motown music, and his future as a musician was promising. "But when you're writing a hit song and the one thing you wonder about is what your boys are doing at school, you know where your heart is."

Today, Harris plans to be in Bobby's life forever. "I love it when he talks about college," he says. "And he wants to write movies. If my life ever gets into a movie, Bobby will write the script."

Being around for the long haul is perhaps the most astonishing and ambitious aspect of Friends. Imagine signing a 10-year job contract—a huge commitment to any line of work. When Friends describe it, though, it sounds like they're describing a dream job.

Jenna Forzley, another Friend who has been with the program since it began four years ago, says the commitment is daunting at first. "I admit it was scary, the 10-year thing is a major commitment," says the daughter of Mike Forzley. "But today, you couldn't get me to leave. No way."

Jenna Forzley says her commitment is strong to the eight girls she mentors. "If I ever thought about leaving, the only thing that would keep me is my girls," she says. "I can leave my family and my friends for a while, but never my girls."

And the feelings are mutual. "I tell them, one of these days you guys will baby-sit for me," says Forzley. "They're already planning my wedding and looking for my boyfriends."

However, Forzley says the friendship does not happen overnight. It takes time, patience, and understanding for the bonds between adult and child to evolve. "There was a honeymoon stage," she says, "when my girls wanted to be perfect so I would stay. Then they might start thinking that you're going to leave—like maybe the other adults in their lives have done. And they test you. Eventually, they know they're not going to shake you off."

Building that trust is no easy task, and can take years. "One of my girls had what I call a death glare," Forzley says. "All she would do is stand behind me and glare at people. Three years later, she walks in and starts conversations with people." For another girl, it took a couple of years before she told Forzley about a molestation incident.

Children in Friends also learn to care about others, to give of themselves, and to support and trust others. "I'm going back to college now," Forzley says, "and sometimes I get freaked out. But then my girls say, 'When you do homework, we'll do homework.'"

Both Forzley and Harris have been touched by the unexpected modeling influence they have had on the children with whom they work. "I wore a ponytail one day," Forzley says, "and the next day all my girls had ponytails."

Harris is aware that the way he presents himself influences others around him. "That's basically how I teach," he says, "by doing and being the person I want to see in them."

Friends must walk a careful line when first coming into a child's life. They must be aware and respectful of the child's home and family. "We come in slowly and as just another friend," Forzley says. "Parents are cautious at first. They're concerned, but they see what you're up to and you start having a good effect on the whole family. They begin to see their kids blossoming."

The focus on resiliency in the Friends approach has been instrumental in gaining the financial support of the Multnomah County Children and Family Services office. The county has allocated $210,000 to the Friends program. Mary Li, Multnomah County Program Development Specialist, says

The Top 10 LIST

Friends of the Children lists 10 major reasons behind their promise to help at-risk children:

1.
One-on-one relationship:
"A caring, loving relationship with a positive adult role model can literally save a child's life. We are committed to quality one-on-one time with each of our children."

2.
Long-term commitment:
"There is no quick fix. We are committed to our children for the long haul—at least 10 years."

3.
Our *most* challenged children:
"In coordination with schools and families, we identify our community's most vulnerable children by looking at risk and protective factors."

4.
Early intervention:
"The earlier you begin, the stronger impact you can make. We begin working with our children at age six and seven when their minds and hearts are most open."

5.
Manageable numbers:
"Friends never work with more than eight children at a time."

6.
Paid professionals:
"Friends are full-time, paid professionals uncommonly gifted with children."

7.
Experiences equal opportunities:
"We help our children reach their unique potential, exploring their talents while teaching life skills."

8.
Positive expectations:
"Our children will succeed—we believe in them. And our children grow to believe in themselves."

9.
Comprehensive:
"We provide a link to our children's total environment—family, school and community. We tap many resources."

10.
Evaluation-based:
"We are committed to making a positive difference; we are measuring our success based on hard outcomes."

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the county was impressed with Friends' research-based approach. "We'll be looking at their indicators," she says. "But the anecdotal success so far is very exciting—every Friend I've talked to has a compelling story."

Mike Forzley says the Friends approach will continue to show positive, documented results. "We're starting to be part of the mainstream of helping children," he says. "Ultimately, our goal is to be ranked up there with firemen and teachers."

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At the Friends House in Northeast Portland, children gather with their adult friends to play, do homework, or just to have a space away from home or school. It is a sanctuary of sorts, with the atmosphere of a warm home complete with creative clutter and the echo of children's voices.

In the kitchen, poetry magnets are arranged at a young child's eye level on the refrigerator.

And in the clutter of letters arranged haphazardly, a child's poem appears: "Me and You Garden Flew." In just five words, a child has summed up the essence of the Friends program: friendship, growth, and taking flight.

Shannon Priem is a freelance writer, equestrienne, and occasional marathon runner living in Vancouver, Washington. ■

SCHOOLS AND FRIENDS: A NATURAL FIT

Jenna Forzley patiently and methodically goes over some school work with Mary, one of the kids she mentors as a participant in Friends of the Children. The two hunker down over books and papers scattered across a desktop in a northeast Portland home that serves as a base for Friends.

Helping young children appreciate learning and improve their academic success are integral parts of the long-term relationship that develops between Friends' mentors and the children they help guide through their elementary and adolescent years. Forzley and other mentors have provided more than 8,000 hours tutoring children during the program's four years.

While Friends of the Children is a home-based program, it is also having a dramatic impact in schools. Two principals in the Portland Public Schools, Greg Jones of Clark Elementary and Joseph Malone of Martin Luther King Elementary, are sold on it.

"The three children we've had in the program since 1993 are doing well academically and are fairly stable," Jones says. "Friends of the Children is a natural fit in what we do here, and especially with the families. Parents will often call a Friend instead of the school when there's a problem. I'm really delighted at what they've done."

Friends are also bridging the gap between home and school at King. "They're giving kids a win-win situation, and other kids are benefitting, too," says Malone. "They see these adults come in, and this gives us more adult role models. They've paved the way for me to go into homes myself and talk about school. We're seeing attitudes change, kids being able to handle their anger in more positive ways. I have an office for them at MLK; to me they're part of the staff."

From school to home to life in the community, the Friends program is seeing widespread effects in the lives of its youthful charges. In developing the model that has served nearly 200 children in Portland and about 30 others in Washington, D.C., Friends of the Children looked to research on resiliency—especially the effects of mentoring in a young child's life.

The Campbell Institute, which founded Friends, spent a year exploring research and visiting other programs nationwide. "We took the best from each program to create ourselves," says Mike Forzley, the Institute's Director of Strategic Planning. "It was clear that you start young, have manageable numbers of children, and a positive expectation for them. But the most important idea is to create an extended adult relationship for a child."

Each Friend is a paid employee and has eight children to mentor. "That's manageable," says Zachary Harris, one of the original Friends, who also handles community relations work. "That's what attracted me to the program."

Mentor programs have proliferated in recent years, partly because of increasing evidence that they help children academically and socially. A recent evaluation of one of the country's longest running mentoring programs, Big Brothers/Big Sisters, showed widespread benefits.

In *Making a Difference: An Impact Study of Big Brothers/Big Sisters*, evaluators found that children with regular contact with a mentor did better than peers not served by these or similar mentoring programs. Researchers found that children:

- Skipped half as many school days and felt more confident in their ability to complete school work than did their peers
- Earned slightly higher grades than their peers
- Were 46 percent less likely to start using drugs, and 27 percent less likely to start drinking than their peers
- Became closer to their parents and less likely to lie to them

Friends of the Children has reported positive results since the organization began in 1993. For example, school attendance is up 20 percent and behavior referrals are down 20 percent, and children have completed 840 hours of community service.

According to researcher and author Bonnie Benard, resiliency research provides "astounding findings" that 50 to 70 percent of youth growing up in high-risk conditions overcome the odds to lead successful lives. Resiliency, she notes, is an innate ability dependent on three protective factors:

1. A caring relationship grounded in safety and basic trust
2. High-expectation messages that convey belief in a child
3. Opportunities for meaningful participation in the community

"The voices of those who have overcome adversity . . . tell us loud and clear that ultimately resilience is a process of connectedness," Benard notes. "Kids can walk around trouble if there is some place to walk to and someone to walk with."

The Northwest Regional Educational Laboratory is evaluating the Friends program, considering indicators such as percentage of children who stay in school and out of the criminal justice system; who report a positive sense of well-being and hope; who report at least one supportive and close relationship; and who are suspended or expelled from school. The Laboratory also is looking at academic achievement in school and overall behavior.

RESOURCE NOTES: Copies of Making a Difference: An Impact Study of Big Brothers/Big Sisters *are available from Public/Private Ventures, Communications Dept., One Commerce Square, 2005 Market St., Suite 900, Philadelphia, PA 19103 (87 pages, $7.50 prepaid). For more detailed information about resiliency, see* Fostering Resiliency in Kids: Protective Factors in the Family, School, and Community, *by Bonnie Benard, and* Vulnerable but Invincible: A Longitudinal Study of Resilient Children and Youth, *by Emily Werner and R. Smith.*

FRIENDS OF THE CHILDREN AT A GLANCE

P.O. Box 90248
Portland, OR 97290-0248
(503) 782-4047

Children in program
183 in Portland
32 in Washington, D.C.
Children begin with the program at ages 6 or 7

Cost per child
About $6,000 a year

Type of organization
Community-based nonprofit relying on donations, grants

Commitment of families
10-year relationships with young adults who serve as role model, and advocate for the child

Evaluation
Contract with Northwest Regional Educational Laboratory

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FAMILY-FRIENDLY SCHOOLS

The Community as a Lens to Improvement

Edmonds School District enjoys a national reputation for involving its communities in educational decisionmaking

Story and photo by TONY KNEIDEK

LYNNWOOD, Washington—When you walk into the administrative offices at the Edmonds School District, you come face to face with Sylvia Soholt, the district's Community Relations director. Her desk faces the door and she looks up from her work with each person who enters.

This is no accident. When Soholt first took her job in 1992, she began quietly but doggedly moving the district toward a customer orientation that says, "Let parents and others in the community know that we are here to serve them and the needs of their children."

This attitude of customer service has become the hallmark of the Edmonds district. Today, the district enjoys a national reputation for family friendliness. And no one is left out of the district's efforts to communicate: state legislators, business leaders, church leaders, community activists, service organizations, parents, and others in the community are all a part of district efforts to gather public views, provide information, and foster community involvement in the schools.

"I came to the district with a background that focused on asking customers what they want," Soholt says. "We have also had visionary leadership that helps the schools and teachers to see the need for engaging the public."

The effort, Soholt notes, is not merely window dressing. As one of five districts in the Seattle area that participated in the National Alliance for Restructuring Education project, Edmonds officials are keenly aware of the ties between public involvement and student achievement (see related story on Page 27).

"Our work in public engagement took a leap when we associated with the Alliance," Soholt notes. "They provided a research base and training, and the ties between public engagement and its benefits to student achievement were made much clearer. We looked at our practices to ensure that parents were there."

The changes, which Soholt refers to as an evolution rather than a revolution, required a shift in the ways the district perceived public engagement. No longer were administrators and teachers the keepers of knowledge and the purveyors of information. "We began to see our communities as resources, and we began to ask what they wanted," she says.

The district conducted focus groups in which parents, business leaders, and other community residents offered insights, advice, and views about the district and schools. "We've adopted an approach in which we see the community as a lens for developing services for students," Soholt says.

The district and individual schools have standing citizen committees that address legislative issues, bond issues, planning, enrollment impacts, curriculum, and building needs and conditions. "What we are getting from the community is a lot of informed judgment," Soholt notes.

The Edmonds district is not merely resting on its laurels. With 34 schools serving more than 21,000 students, each school is developing strategic plans to engage their communities, to analyze what they do and assess how well it works, and to share promising practices among schools. The following provides thumbnail sketches of four of the Edmonds district's schools and the ways in which they have worked to build strong relationships with parents and others in the community.

MAPLEWOOD ELEMENTARY —A PARENT CO-OP

Parents move easily through the hallways and into classrooms at

this parent-cooperative school. It's a place where parents provide more than 30,000 hours of volunteer services a year to the K-8 school that serves 460 students.

The level of trust for parents' skills and know-how is readily visible. Parents work individually with students and on group activities in each of the school's classrooms.

The commitment from parents —90 hours per family for each student enrolled—is huge. But it is one that parents take on willingly. "I work part time, and have Wednesdays off," says parent Annie Knudson. "So I dedicate my time on Wednesdays to the school. It's what I want to do as a parent. I enjoy it, and it's what I want to do for my child."

Knudson, the school's volunteer public relations coordinator, explains that Maplewood blends a strong commitment from parents with a high level of trust for the teachers.

For example, kindergarten teachers determine the most appropriate placement for children entering first grade—whether they should go to a single-grade classroom or a mixed-age, one-two blend. Each class has a parent coordinator who works with the teacher to schedule the best times for parents to volunteer. "Most of the 90 hours that parents are required to volunteer are spent in the classroom," Knudson says. "That's what makes the co-op work."

There also is a ready supply of volunteers for the two field trips a month that students take. And parents also can serve on classroom and schoolwide committees, help with the school bank, serve in elected roles such as Knudson's public relations position, or participate in other volunteer activities that abound at Maplewood.

The school, which opened in 1983 as a K-2 cooperative, has grown through the years. For the first 10 years, the cooperative operated as a school-within-a school. Then five years ago, Maplewood moved to its own building. Each year, 52 new kindergarten children are admitted, and siblings get preference over new entries.

Parents must sign up their children when they are three years old to get on the waiting list. Admission is on a first-come, first-served basis. For each of the elementary grades, Knudson says, there is a waiting list of about 100 students. Some parents opt for another school when their child reaches middle school where organized team athletics and other extracurricular activities are offered.

"Parents here know and understand their child's education," Knudson says. "They know the teachers and they know the other parents. It's a safe environment, and there aren't any surprises because we are all involved in the school."

CHASE LAKE ELEMENTARY— ADVOCATING FOR PARENTS

Three years ago, Chase Lake Principal Pat Johnson, her staff, and parents began looking for ways to return their elementary school to its roots as a neighborhood school. "We knew we had to get families back into our school," notes Johnson. "When families are involved, kids get more excited about school and about learning."

Chase Lake was one of three elementary schools in the Edmonds district to receive a Washington state Readiness to Learn grant, and it used the money to hire a family advocate. Diane Dugger, who continues in that position, began swinging open the doors of Chase Lake to families and looking for ways to get them into the school.

"The days of closing down the school building at 3 p.m. are gone," she says. "We're open two nights a week now for families to come in with their children or by themselves. We're creating a moment for parents to break away and spend time with their kids."

Every Tuesday and Thursday night, Chase Lake invites families to the school for the types of activities they have requested through parent surveys. Usually, families come with children in tow for activities ranging from drawing to African mask-making to cake decorating, computer use, and clay sculpting. On some nights, there is no planned activity, and parents just socialize with others.

"Since we started our family nights, we've seen an increase in volunteering at the school," notes Dugger, whose three children have attended Chase Lake for 10 years. "The school has become more familiar to them, and it's not such a distant place."

The school serves a diverse population in a mostly suburban area. More than 40 percent of the children come from single-parent homes, and nearly 50 percent of the students participate in the free- or reduced-price lunch program. "It's the nature of things today, even in the suburbs and in middle-class America," Dugger notes.

The school has also formed a partnership with a local mental health agency, and professionals provide parenting and other classes while the school provides child care. Chase Lake also houses a YMCA before- and after-school day

care that is open to all families with school-age children.

This year, Dugger is focusing her efforts on working with families whose children are chronically late for classes or don't show up for school. "I do home visits," she says. "My approach is to find out what families need. It can be anything from an alarm clock to clean clothes for the kids to counseling for drug and alcohol problems. I ask the parents: 'What is the reason that your child cannot get to school on time?' I work with families. Parents don't intend to have their kids fail in school."

Some people, Dugger notes, find their lives temporarily in chaos—a lost job, a divorce, slipping off the wagon. "When life turns totally chaotic, it's tough to make things happen the way they should," she says. "But if the chaos continues, then we have to look below the surface. I try to be understanding, but when it goes on for too long, I hammer on them."

One of the more popular family night activities at the school is family reading night. Kids come in their pajamas with pillows and lounge around on the floor while they read with their family. Such activities, Johnson says, have a lasting effect on the school. "People begin to see the school as a friendly place and are more likely to come to curriculum night or to a PTA meeting. That's the whole idea—to make the school an inviting place."

The effect of increased family involvement, Dugger adds, ripples through the school. "When the school becomes a haven—a community gathering place—we see students take on an excitement for learning. It sends a message to kids that the adults in their lives care about them—that they care about their education and value what they are doing. And the kids see the adults as their advocates."

CEDAR VALLEY COMMUNITY SCHOOL—A HEART FOR CHILDREN

Parent Jim Raymond had practically made up his mind: He had heard a lot of negative comments about Cedar Valley, his neighborhood school, and would send his children to another school. "I had my daughters enrolled in another school," he says. "But when I visited, I felt that the school was cold. We stepped back and asked ourselves why we weren't sending our children to our neighborhood school. We visited, and found it had a positive, warm, and caring atmosphere. It was the Family First dinner, though, that sucked us in."

Raymond is only half kidding. The monthly dinner, which is offered to Cedar Valley families but which turns no one away, has gone a long way toward opening up communication between the school and the families it serves. "You had staff, parents, new parents, the principal, everybody was there and everybody was on an equal plane," Raymond says. "It was a lot more welcoming than anyplace we had visited."

The dinners, which are underwritten by Costco, are attended by about 95 percent of the families in the 350-student, K-8 school. They are a way to bring parents and others into the school, and are part of a concerted effort to involve families in their children's education. Family First dinners also include a school activity for parents and children, such as math fun night, book night, curriculum night, and discussion of statewide learning frameworks. But Cedar Valley, says Family Advocate Jim Jones, is more than a place where children come to learn academics. "We have worked to create a braided web of support for our students and their families," Jones says.

Cedar Valley is one of the most diverse schools in the Edmonds district. Nearly half the students are from minority cultures. There are 22 different languages spoken by students and their families. There is a 78 percent mobility rate, meaning that only 22 percent of the children who start a school year finish it at Cedar Valley. And 80 percent of the children participate in the free- or reduced-lunch program. With high poverty comes a myriad of health and social issues that often are beyond the means of families to address.

The school has formed partnerships with Costco, the Edmonds United Methodist Church, Washington Mutual Bank, and the local Grange, which provides financial support to families on a monthly basis. In addition, Family Support Services offers counseling on preventing homelessness, effective parenting, and other issues.

The school also provides a Community Resource Room, where parents and others can conduct job searches, use the Internet, socialize, and access other school resources. And 27 parents attend adult ESL classes during the school day while the school provides child care for their younger children.

Nancy Sutherland, the school nurse, has also arranged for onsite Hepatitis B immunizations for sixth- and seventh-graders, pro bono dental care, free haircuts for children, and other health-related services. "We have a holistic view of

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the child," Sutherland says. "We are trying to make sure that when children come to school, they are healthy and ready to learn. This is a school that really has a heart for children."

Jones says that the Cedar Valley community is involved in the process of designing a new school, one that would have the potential to provide onsite health, employment, and social services. "Our surveys indicate that if we had a school-based health center here, people would use it," he says. "Our curriculum and instruction is designed to provide wrap-around care for the students. We get referrals from teachers, parents, secretaries, custodians. We're all trying to meet the needs of the children."

School-based health and social services—where the school provides space and collaborates with other public agencies—is gaining attention nationwide, but has not become a reality at many schools in the Pacific Northwest. And schools that have provided health clinics—mostly high schools and some middle schools—have often run into resistance from parents and others concerned about birth control and reproductive rights.

Cedar Valley has been studying the concept for four years. School personnel have conducted meetings in families' homes and apartments as well as held forums at the school to offer views and gain insights into the issue. "We really want to make sure we have the community engaged," says Jones. "We're looking at a school that addresses the needs of the family, not just the student. You really can't separate the child from his home environment. We're trying to get people to think outside the box. And elementary school is a good place to do that."

Such an approach also means that many of the time-honored practices of schools must be reconsidered. "We want this place to be a community center that houses a school," Jones says. "This is the community's place, and we work really hard to make sure this is their place."

Parent Sharlene Greene has taken that attitude to heart. With four children attending Cedar Valley, she is involved on the school's site council and banking team. She also volunteers in the classroom and escorts children on field trips.

"I want my children to enjoy and like school," she says. "I want them to enjoy learning and to see the value of being involved. I want my children to see that getting involved in their community is important."

THE CYBERSCHOOL—A PLACE FOR HOME SCHOOLERS

After nearly a quarter-century of classroom teaching, Rob Howie has found his home at The Cyberschool. As the principal at the resource center for families that home school their children, Howie sees the fruits of his beliefs about education taking life.

"This is an out-of-the-box place," says Howie. "My quarrel with traditional schooling is that you have to do everything in 50-minute boxes. They're teacher-driven rather than kid-driven. Here, a kid can work on something for two hours or two weeks. They determine the pace. When high schools are losing 24 percent of their clients, something different has to be done."

That "something different" in the Edmonds district is The Cyberschool. And it has struck a chord with parents who choose to school their children at home. "When we first started The Cyberschool last year, we thought we would have 75—maybe a hundred—families interested," says Sylvia Soholt, the district community relations director. "At our first organizational meeting, we just asked what we could do to help. We had 200 families register the first day."

In just its second year, The Cyberschool serves 450 families and has a list of others waiting to use its services. Under the Edmonds plan, children and parents develop an educational plan for the student. The district receives full funding for the student, and parents receive a $400 stipend to purchase curriculum materials and other educational resources for their child's education.

The Cyberschool was originally conceived as a telecommuting school—thus the name—in which students would work from their homes and be electronically connected to teachers. "We found that parents wanted the support of other parents," Soholt says. "They wanted their kids to be with other kids."

Students must spend a minimum of five hours a week working at the school and must document 10 to 24 hours of additional work at home, depending on the age of the child. "The parents and their children write a student learning plan that aligns with the statewide frameworks and essential learnings," Howie says. "The moms and dads are the teachers. We're their helpers."

Parents determine the classes that will be taught and often learn and work alongside their children. This year, the school offers six

languages—French, Spanish, Japanese, German, Latin, and American Sign Language—as well as courses in art, physics, computer technology, and others. In addition, students can participate in Running Start, a program that allows them to earn an associate degree from Edmonds Community College while working toward their high school diploma at the same time. Computers at The Cyberschool are all hooked into the Internet, and each student has an e-mail account. "These kids have unlimited access to technology," Howie says.

"The parents and kids really run this school," he adds. "It's their curriculum. It's their school. They tell us what they want, and we offer it."

Parent Brenda Peterson home schools all four of her children. She works on an art project with daughter Joelle, while toddler Nathan looks on. She says she began home schooling when her oldest daughter was about to enter kindergarten. "I felt she was just too young to be walking off to school by herself," Peterson says. "We knew that we could at least provide the basics for our children for the first two or three years." That temporary home schooling arrangement has turned to a full-time educational experience for the family. The Cyberschool, Peterson says, provides her children an opportunity to learn with other children. "It also gives them more choices from the educational menu than I can provide by myself."

Howie says that the parents and students who attend The Cyberschool have chosen to home school their children for a variety of reasons. "For most of them, their reasons are positive. It's a family thing, a desire to stay close as a family." There also are other reasons, he notes—from dissatisfaction with the public schools to religious, political, or philosophical underpinnings. But the different reasons don't divide parents, he notes. "They're all home schoolers, and they are all here for that reason."

In the future, Howie sees the school providing opportunities for study in foreign countries, formal graduation ceremonies, and other enrichment activities. The cost per student, he notes, is about half of the district average at a school that is open from 7:30 a.m. to 5 p.m. daily. The only limits to learning, Howie says, are determined by the parents and students. And there may well be a positive spin-off for other schools in the district.

"My guess," Howie says, "is that home school families normally vote against levies. But these folks wouldn't do that. We're giving them what they want. We're giving them what they need." ■

The National Alliance

The National Alliance for Restructuring Education provides assistance to states and districts committed to a comprehensive and systemic approach to standards-based education reform. The Alliance framework is based on five "design tasks." They are:

- Standards and assessments—Defines the standards and outcomes for students and implements complementary performance assessment systems
- Learning environments—Schools and communities create a curriculum and instructional program that will support students' reaching higher standards, integrate technology throughout the instructional program, and implement a comprehensive school-to-work system
- Community services and supports—Focuses on creating web of services and supports for children and families
- Public engagement—Identify and implement strategies that foster public support and parent involvement
- High performance management—Links and integrates the work across all design tasks to produce higher levels of student and system performance

DRUMS FOR PEACE

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One cannot help but to feel the drums. They are the heartbeat of the Akicita Heyoka—the contrary warriors, the Fool Soldiers—and the symbol of nonviolence that traces more than 130 years of a family's legacy of peace.

The drums of the Akicita Heyoka have been beating for peace, nonviolence, and justice since 1862, the year that 10 young Lakota men risked their lives in the name of peace. These 10 young men—ranging from 16 to 21 years old—were led by WaAnnatan, the Charger. During the Minnesota Uprising of 1862, a time of war among the Native American nations and White settlers, WaAnnatan and his Fool Soldiers negotiated the release of several women and children from the warring Dakota White Lodge, and returned the captives to St. Pierre, South Dakota.

"These 10 young men believed in peace between the races," says Brenda Charger, WaAnnatan's granddaughter. "This went against the beliefs of everybody else."

Today, Brenda's father, Harry Charger, leads the Akicita Heyoka Society from his reservation home in South Dakota. Brenda Charger and her husband, Darren Black, are caretakers of the Fool Soldiers' drum. Charger's sons, Kyle, 10, and Nolan, seven, are being prepared to take on the responsibilities of drumkeepers, a sacred role among the Akicita Heyoka.

"Among the Lakota, the boys and men are drumkeepers and songkeepers," Charger says. "Darren and I are teaching the boys the responsibilities of the drum—the different ways of the drum." The Fool Soldiers drum plays prominent roles in powwows, weddings, memorials, funerals, Sun Dances, and other ceremonies. The Fool Soldiers perform in schools and on special occasions, such as Veteran's Day ceremonies at the Chemawa Indian School in Salem, Oregon. "Wherever the drum is needed, you go," Charger says. "You don't go for money, but for the belief."

Charger and Black are passing on the beliefs and values of the Lakota to their sons. In so doing, they are presenting them with a spiritual foundation and a strong sense of responsibility to themselves, their heritage, and their people. Already, Kyle and Nolan, with their raven black hair flowing nearly to their waists, have felt the sting of discrimination and bias. It happens in the schoolyard and when the boys perform with the Fool Soldiers.

"Some of the little kids have racist remarks," Charger says. "They make the Hollywood Indian sounds, like we're all Pow Wow the Indian Boy. It used to make me angry. But I don't play that prejudicial game anymore.

"Teaching my boys that lesson is hard," she adds. "They've had a lot of arguments with other kids—some Black kids, some White kids. I just tell my boys that every race has some people who are prejudiced, and that we shouldn't play that game. I tell them there are prejudices even among our people. But I tell them it is up to us to change that."

The members of the Fool Soldiers compose a diverse group themselves. The ensemble includes members of several nations, including Sans Ark Lakota, Nez Perce, Colville, Tshimsin, Turtle Mountain Chippewa, Crow, Assiniboine-Sioux, Yakama, and Umatilla.

"It is OK to be proud of who you are regardless of the style of your hair, the color of your skin, or the way you dress," says Charger.

Charger's Lakota heritage and her connections to the Fool Soldiers are part of the legacy she is passing on to her sons. It is a powerful bond that provides a framework for pride in oneself, personal responsibility, and concern for others. "We teach them that if they

take care of the drum, it will take care of them," Charger says from her apartment in a north Portland complex. "When you don't misuse it or abuse, the drum will take care of you."

Kyle and Nolan are learning the songs, the ways of the drum, the history of their people, respect for the planet, and other aspects of their Lakota heritage. "We're teaching the boys respect for the animals and the land, though they teach us too," notes Charger. "They're into recycling now. Some of the things I used to clean the house with I don't use no more," she adds with a laugh. "They got on me about it—about dirtying the water. They're such environmentalists."

Brenda Charger and sons Kyle and Nolan

The passing of the drum to the younger Chargers will occur when they feel they are ready to accept the responsibilities, when they feel they understand the ways of the drum. "It's in their hands," Charger says. "It is left up to them. When to care for the drum, that's their decision. It's not ours to make. They make their own decision, and they will accept responsibility for it. They will carry on the tradition."

Kyle understands the responsibilities ahead of him as a keeper of the drum. "This drum is really special," he says. "I'm learning about its power."

The drum, which is the only one that represents the Akicita Heyoka Society, is adorned with medicine and tobacco pouches, eagle feathers, and other gifts from people for whom the Fool Soldiers have performed honor dances. Sweet grass weaves its way around the drum, which has a face of elk hide over buffalo hide. A detailed painting on the drum face represents the values and legacy of the Fool Soldiers. Ten small tipis represent the original 10 Fool Soldiers who sought peace in 1862. A bolt of lightning is the symbol of the Charger family. The colors each carry meaning as well: the blue represents sky, and the black and white represents the coming together of all people.

"This is the only one," Charger says. "This is the only drum that represents the society itself."

LEARNING FROM THE PAST

Hanging on walls and draped over chairs throughout the Charger-Black apartment are the traditional moorings of their heritage. Eagle-feather bustles and eagle-feather fans are proudly displayed and are part of the traditional dress that Kyle and Nolan wear when dancing and performing.

"Eagle is the messenger," Black explains. "Since he flies higher than any other bird, he carries the prayers to the Great Spirit. He's a good luck symbol to us. Plus, he's a pretty bird."

Also hanging on the walls in their apartment are more than 20 photos of family members. Charger's father, Harry, has been teaching Black various ceremonial songs such as pipe songs, sun dances, memorials, and weddings. "My dad is fluent in Lakota," Charger says. "But the language is being lost in my generation. A lot of our parents went to boarding schools and the language was taken from them. Now the language is disappearing."

The Fool Soldiers have continued their messages of peace and cross-cultural understanding through four generations. Today, the group travels to schools and other public places to teach children and adults about their history, the values of diversity, and respect for cultures. Part of the responsibility to the drum is for all members of the Fool Soldiers to remain drug- and alcohol-free.

Both Charger and Black have been in recovery for six years after years of alcohol addiction. In 1992, they went through a family-oriented alcohol and other drug treatment program provided by the Native American Rehabilitation Association in Portland. "It's the only drug treatment facility in the

United States that takes in entire families," she says. "They understand that not only does the alcoholic need help, but the family does too."

The addiction has gripped other members of the Charger family as well, she says. Today, her sisters and father are all in recovery, though two brothers have returned to drinking. "At one time," she says, "all seven of my Dad's children were in sobriety. That was one of my dad's dreams —to have all his kids in recovery. It was a dream that he realized for only a little while."

In many ways, the lessons Charger and Black pass on to Kyle and Nolan represent advocacy at its most basic level—from parent or caring adult to child. "I'm teaching the boys to respect other points of view and other people," Charger says. "But mostly, they need to respect themselves. If you don't have respect for yourself, you won't respect anyone else. To respect yourself, you must know yourself. To listen to the inside stuff."

Black, who has been making drumsticks at the dining room table for an upcoming performance of the Fool Soldiers, notes that the learning doesn't stop at adulthood. "We are teaching the boys," he says, "but we are still learning too." ■

Helping Troubled Kids

SALEM, Oregon—Judy Rinkin's office speaks of her passion. Posters that adorn the walls in her cramped quarters on the grounds of the Oregon State Mental Hospital proclaim: "One Youth at a Time," and "Putting Our Voices Together for Children."

Rinkin, Executive Director of the Oregon Family Support Network (OFSN), is barely visible amid the file folders that bulge from baskets, the stacks of reports and research piled high on her desk, and the computer and printer that whir softly in the background.

The Network, which Rinkin founded in 1991, serves the needs of families with children and adolescents with severe emotional, mental, or behavioral disorders. These are the kids, Rinkin notes, who often fall through the cracks of others' efforts to advocate for children.

"These children need family-centered and age-appropriate services in their homes and in their communities," she says. "I firmly believe that children are best served in the home, but there are times when they may need residential treatment for a period of time."

That attitude is evident in the Network's list of guiding values, which includes:

- Services are family centered and family driven
- Services are individualized and based on family strengths
- Services are culturally sensitive
- Involvement of extended family and caregivers of all kinds is encouraged
- Support is inclusive, unconditional, and nonjudgmental
- Families are the experts on their children

Rinkin's path to founding the OFSN began when her son was diagnosed with mental disorders when he was 13. "We knew all along that he was marching to a different drumbeat," Rinkin says. "Now we had a diagnosis and could work with him."

When Rinkin sought services for her troubled son, she found there was little available other than institutional care. Her son now lives independently and attends Linn-Benton Community College, his disorder generally under control through medication.

After attending a leadership conference in Washington, D.C., Rinkin returned to Oregon ready to advocate for children with severe emotional and behavioral disorders. She began working with others in the state, and organized a committee consisting of parents and families to determine the needs of children. She formed a board of directors composed of mental health, health, education, and social service professionals. Parents, though, comprise 50 percent-plus-one of the board's membership.

The board wrote a mission statement, guiding principles, and goals, then received local, state, federal, and other grants, including $180,000 from the Meyer Memorial Trust. The Network became a nonprofit corporation in 1993, when it had 30 families on its mailing list. Today, the OFSN's newsletter is mailed to more than 4,000 members consisting of families, health and social service professionals, and educators around the state.

The Network also has an office in Lane County, where it is part of an integrated approach to providing services and advocating for families that is coordinated by the county office of Health and Human Services. Chris Spicer, the OFSN Parent Advocate Liaison Coordinator in Lane County, operates "Gimme-A-Break," a respite program for families with emotionally, mentally, or behaviorally disturbed children. The OFSN trains volunteers who provide breaks for families. "This is a way that families can get away," Rinkin says. "Respite provides them a break."

There are, she notes, other respite services in the state, but none that address the needs of families living with children who have severe behavioral or emotional disorders. In fact, she adds, other child advocacy groups, education activists, and health and safety champions often overlook the needs of some of Oregon's most troubled children.

Rinkin crisscrosses the state conducting workshops, meeting with parents, training support group facilitators, and networking with professionals in the community who can provide services to the families in need. Equally important, she notes, is the need to educate society about the needs and difficulties of children and families in distress.

"Most of the families we serve are single parent—generally mom as head of the household, and generally mom with more than one child," she says. "Think about it. We expect the mom to work *and* to be there for her child. Well, parents with emotionally and behaviorally disturbed children get calls from the school or police because their child is acting out. Mom must leave work to tend to the needs of her child. Often, the parent is working at a low-paying, service-oriented job. How many employers are willing to let the mom leave? How often can this happen before mom is out of a job?"

Such complicated lives, Rinkin notes, are not well understood by elected officials, policymakers, school officials, or society in general. "We are quick to blame," she says. "We are not quick to support. Where is the village concept of support—of working with families—instead of blaming them?"

The Network advocates for children whose mental or emotional disorders often are not diagnosed or are misdiagnosed early in their lives. They include illnesses such as attention deficit disorder, autism, depression, bipolar disorder, schizophrenia, multiple personalities, and obsessive compulsive disorder. Left undiagnosed, the child becomes increasingly isolated and the family becomes increasingly frustrated and alone. Often, the children turn to alcohol and other drugs to cope.

The Network has established family advocacy support groups in each of Oregon's 36 counties. It has trained dozens of family coordinators in workshops that address communication skills, suicide prevention, how to run a support group, and how to deal with problem parents. The family coordinators have been recruited from the ranks of families that the Network has served.

"When parents call us and say, 'My child is coming off the walls,' we provide information and support or we get it to them," Rinkin says. "Informed parents can make informed decisions that are in the best interests of their children and family. But ignorance and fear go together."

Twice a year, the family coordinators are brought to Portland for a daylong seminar that provides research, technical assistance, expert advice, and an opportunity to meet and learn from other facilitators.

In addition, the Network has enlisted the support and assistance of professionals in communities throughout the state. "We cannot do this by ourselves," Rinkin says. "Most of our work is done by volunteers. They make it happen. If we didn't have the support of professionals in the communities, this would not happen."

The Network provides support and information to families whose children are severely emotionally or behaviorally disturbed, including:

- Emotional support and technical assistance to families
- Family-to-family links and networking with other child-serving agencies
- Information about the nature of emotional disorders and mental illness
- Community forums that improve the understanding of the service needs for children and adolescents with emotional and behavioral disorders
- Parent and professional partnerships
- Assistance for families needing to develop an individual learning plan for children and a school

"We work at the grassroots level," Rinkin says. "We get out into the communities and begin support groups for families. We let them decide how often they will meet, and what their needs are. It only takes two family members to form a support group. We can build from there."

For additional information, contact Judy Rinkin, (503) 581-2047.

—Tony Kneidek

Creating an IEP

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How Communities Can Support Family Involvement in Education

Combat alcohol, drugs, and violence

These problems threaten children's chances for success in far too many of our communities. Prevention programs work best when parents, students, schools, law enforcement officials, and communities join together to fight back. For example, schools and community members can provide mentoring and after-school programs to give children safe havens from violence and alternatives to drugs. Communities can also put students on the right path by providing a quality education and school-to-work programs that lead to college, technical training, or good jobs after high school. Solving drug and safety problems is a difficult task, and each community will have to find its own answers. But when communities unite, real progress can be made.

Teach parenting skills

Programs for parents can include academic classes, literacy training, career preparation, early childhood education, children's health, and assistance in finding helpful services in the community. When adults become involved in parenting education, parent-child communication improves and children with developmental delays in speech, social skills, and other areas overcome these challenges more readily. High-quality parenting programs engage parents early, sometimes even before their child's birth, and focus on the critical early years of a child's development. A recent study of family literacy found that economically at-risk preschool children whose parents received significant amounts of parenting education performed better on vocabulary tests—an important measure of literacy—than children whose parents received little parenting instruction.

Provide mentor programs

Changes in families and communities have limited the amount of contact many youths have with adults who can offer advice and act as role models. To help fill in the gap, interested citizens—from employers to college students to senior citizens—can participate in mentor programs which can provide emotional support and guidance to young people. Mentors can help with schoolwork, job skill development, career planning, parenting, and the many other challenges that face young people today.

Enlist community volunteers

Many different kinds of community organizations, such as civic groups, men's and women's associations, service clubs, and religious groups can organize support for youngsters. In many communities, senior citizens are putting their experience and expertise to work on behalf of children. Nearly 40 percent of Americans over 60 years of age are now involved in some type of volunteer activity. Volunteers can serve as tutors or teacher aides, work in the library, or help with after-school activities, such as music and storytelling.

Offer summer learning programs

Communities can make summer activities available to young people through schools, cultural institutions, park districts, and other public and private agencies. Activities might include programs at recreation centers, science and art museums, libraries, and camping sites. These programs are particularly important for low-income children. With limited access to such learning resources at home as books and computers, low-income children can suffer serious academic losses during the summer. Those months need not become a time for losing ground academically or getting into trouble. With the help of community resources, it can be a time of productive learning.

Support preschool programs

Two examples of community programs that support family involvement are Parents as Teachers (PAT) and Home Instruction Program for Preschool Youngsters (HIPPY). Missouri's Parents as Teachers program operates in every district of the state and works with parents of children up to 3 years of age. HIPPY is for mothers of children aged four and five, and it offers a curriculum and materials to help moms get their children ready for kindergarten. Local parent aides visit families to explain the program and review lessons. PAT and HIPPY have been found to improve children's achievement and adjustment to school.

Source: Family Involvement Partnership for Learning, 600 Independence Ave. S.W., Washington, DC 20202-8137, 1-800-USA-LEARN. ■

AS A PARENT of two elementary-age children, I struggle with my role in making sure that they are doing as well as they can in school. Like thousands of other families where both parents work, time is the challenge.

A recent experience with my youngest child made me think about the importance of my role as an advocate for my children. My son Michael began kindergarten this past September. After the first two weeks at his new school, he seemed to be unusually subdued and tearful. Michael is by nature a happy and light-hearted child. But I noticed a change every afternoon when I picked him up at school. He was also having "accidents" during the school day, a sure sign that something was wrong.

At the time, I was incredibly busy at work and felt it was all I could do to keep everything at home in motion—dinners, shopping, paying bills, working out the after-school schedule for our fifth-grade daughter—the list goes on. I let two full weeks go by before I finally admitted to myself that something was wrong with Michael that needed to be addressed. I realized that Michael was unhappy at school after spending all summer looking forward with great excitement to starting "big kids' school."

One afternoon, I simply took the time to focus on Michael. I asked him why he was unhappy in his new school. He immediately broke down in tears. He told me that he didn't want to go to school anymore. "I don't know how to draw," he said.

MICHAEL IS IN A MULTIAGE K-2 CLASSROOM. During the first two weeks of school, his teacher was doing a lot of work with the children by having them share their stories with each other through illustrations. They were drawing self-portraits and pictures of their families, pets, and homes. Michael, as it turned out, was intimidated by this process.

In preschool, he gravitated toward Legos, blocks, and collages. So, as he explained to me through his tears, he was sitting at a table watching all of these six- and seven-year-old kids draw detailed pictures of their parents, siblings, homes, and pets. He was literally paralyzed. He kept sobbing: "I can't draw. I don't want to go to school."

Cynthia Guyer

The only way I was able to stop his tears was to promise that in the morning I would speak to his teacher and that together we would help him get through this.

The next day, I told Michael's teacher about our conversation and I asked for his help. I didn't tell the teacher how to solve the problem (I really didn't know what to recommend). But I did tell him that Michael was clearly distressed and getting into the "I hate school" refrain, which was alarming to me.

The school my children attend has a strong reputation for having a stellar teaching staff and a principal who is passionate about children and learning and who encourages family involvement. Given this spirit and culture in our school, I approached Michael's teacher with full confidence that he would do everything possible to work with Michael on his fear of expressing himself through a new and strange medium.

The turnaround was remarkable. Within a week, Michael was coming home from school with an upbeat attitude—loving life and loving school. And then came the surprise. By mid-October, Michael would come home after a long day at school and make a beeline over to a basket of construction paper, markers, and pencils. Before dinner and anytime he had free time, Michael would draw the most amazing pictures of dinosaurs and dragons, goblins and witches, Luke Skywalker and Yoda. His paintings and drawings are all over the kitchen, our family room, and my office. He is having the time of his life with this new and fabulous way to express himself through images, stories, and ideas.

THE LESSON IS CLEAR. When we as parents take the time to stop and really listen to and watch our children, we will instinctively know how to act as their best advocates. Building strong relationships and effective communication with our children's teachers and school leaders is critical in helping our children face the challenges of their school years from kindergarten through high school.

Teachers cannot know and understand our children as well as we do. Parents who are tuned into their children's needs can detect when their children hit a bump in the road. Working effectively with your child's teacher to get to the root of the problem can be instrumental in helping him or her address the problem and move onto new challenges with increased confidence. Helping your children work through their own obstacles to learning and growing lays a foundation for them to appreciate school and embrace learning as a lifetime endeavor.

AS PARENTS AND AS A COMMUNITY, we must realize that in many cities, small towns, and rural areas, we are asking our teachers and school leaders to help our children achieve much higher levels of academic success while school budgets are hemorrhaging.

In Portland, Oregon, educational reform efforts are occurring at a time when budgets are being cut and the commitment to public education appears to be wavering. This has created tremendous pressure on teachers and school leaders. This strain is felt in every classroom, where expectations for every student are being raised at the same time that we have increased the average class size. In Portland's elementary schools, class sizes have risen from 22 children a decade ago to 30 today.

Classroom budgets for supplies and materials, books, field trips, and staff development have also been slashed. Our schools are under great pressure to get all students achieving at much higher levels. This is good. But we need to be mindful that our teachers and school leaders simply cannot do this alone—especially in districts like Portland, where we have seen more than $50 million cut in the last five years. When adjusted for inflation, this amounts to a 20 percent cut in funding for our children's education since 1992.

Now, more than ever before, it is critical that parents step forward to be their children's strongest advocates. An impressive body of research shows that academic

PARENT POWER, A SNAPPY NEWSLETTER from Scholastic, looks at issues in education with an eye to informing parents, and encouraging them to be aware of the education their children receive and involved in their children's schools.

The glossy, four-color publication covers a lot of territory in its six pages and provides parents a springboard for further investigation of educational issues.

To subscribe, write to Ashland Inc. PARENT POWER, c/o Susan Moger, Scholastic Inc., 555 Broadway, New York, NY 10012.

AMONG THE MORE THAN TWO DOZEN brochures for parents available from the Educational Resources Information Center (ERIC) is one that addresses ways to involve yourself in your child's education.

Research studies consistently reveal that high student achievement and self-esteem are closely related to positive parental participation in education. Parents and schools need to work together so all children can succeed in school.

Almost everyone agrees that parents are, after all, their children's first and most important teachers. You, as a parent, have important knowledge about your child's likes, dislikes, needs, and problems that the school may not be aware of.

You may also have ideas for improving your child's school. But even though studies show that most parents want to be involved in their children's education, they may not know how to go about it, especially if, like most parents, they work during the school day.

How Can I Be Involved in My Child's Education? provides ideas for often-asked questions such as:

- What can I do to involve myself with my child's school?
- How can I help my child with homework?
- How can I make our home a good place for my child to learn?
- What should I do if my child isn't doing well in school?
- What if my child doesn't like school?

The brochure is available on the Parent Brochures home page at the ACCESS ERIC Web site: http://www.aspensys.com/eric/parent.html. Paper copies may be ordered by calling 1-800-LET-ERIC, by writing to ACCESS ERIC at 1600 Research Boulevard-MS 5F, Rockville, MD, 20850-3172; or by sending e-mail to: acceric @inet.ed.gov. ACCESS ERIC is the promotional and outreach arm of the U.S. Department of Education's Educational Resources Information Center (ERIC) system.

ANOTHER PUBLICATION THAT LOOKS AT SUCCESSFUL FAMILY INVOLVEMENT efforts is *Model Strategies in Bilingual Education: Family Literacy and Parent Involvement.*

The report examines nine exemplary sites which exhibit a wide range of parent involvement and family literacy programs. Five of the profiles describe bilingual projects, including four that teach Spanish speakers and one serving Navajo families.

The report suggests promising strategies in areas such as project design and implementation, population targeting and recruitment, staffing, inservice training, instruction and curriculum, and program evaluation.

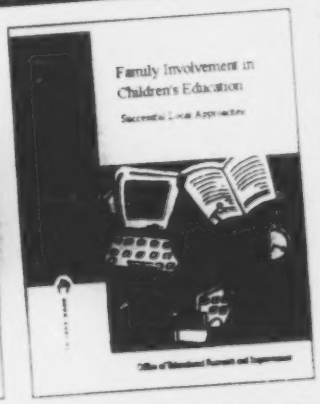
It also describes how local projects address mixed and homogeneous groups of participants in an effort to reconcile different goals and expectations of programs and parents. It also looks at developing literacy and language proficiency, and serving hard-to-reach populations.

A RECENT PUBLICATION FROM the Northwest Regional Educational Laboratory provides parents with some tools to help their children learn to read. *Tips for Parents About Reading: Information and Ideas for Helping Children Through Grade Eight Succeed with Reading* guides parents and their children through developmental reading stages.

The publication includes information and guidelines about characteristics of reading behaviors for several developmental stages including: emergent readers (infants and toddlers); developing readers (pre-kindergarten through first grade); transitional readers (second- and third-graders); fluent readers (fourth- and fifth-graders); and independent readers (sixth- through eighth-graders).

The authors provide cues that children give in their learning to read, offers activities to enhance reading, and lists some favorite books for the reading level.

For a free copy of *Tips for Parents*, contact Deborah Davis at NWREL's Comprehensive Center, (503) 275-9478.



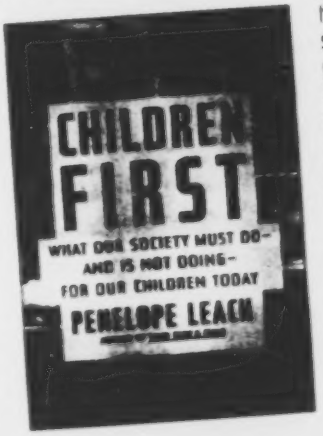
ANOTHER DEPARTMENT OF EDUCATION PUBLICATION PROVIDES insights into the successful efforts of schools, districts, and family centers to support family involvement in education.

The publication, *Family Involvement in Children's Education: Successful Local Approaches*, profiles six schools from different parts of the country, two parent centers, and a school district. The profiles illustrate how some schools and districts are breaking down barriers to family involvement in schools.

Family Involvement also includes chapters on resources available for involving families in education, and issues to address in building successful local approaches to family involvement. Findings include:

- There is no single approach that will work for all who seek to build partnerships
- Training and staff development are essential investments
- Communication is the foundation of effective partnerships
- Flexibility and diversity are key
- Projects need to take advantage of the training, assistance, and funding offered by sources external to schools
- Change takes time
- Projects need to regularly assess the effects of the partnership using multiple indicators

Copies of *Family Involvement in Children's Education: Successful Local Approaches* can be obtained from the Partnership for Family Involvement in Education, 600 Independence Avenue Southwest, Washington, DC 20202. To learn more about the partnership, call **1-800-USA-LEARN**.



IN CHILDREN FIRST: WHAT OUR SOCIETY MUST DO—AND IS NOT DOING—FOR OUR CHILDREN TODAY, Penelope Leach calls on individuals and the nation to make good on the promise about the importance of family by creating the indispensable economic and social supports for children currently missing.

Leach asks all of us—in our legislation, policymaking, and industrial might—to think and act in the best interests of children first. Leach, who also wrote *Your Baby & Child*, contends that what parents do for their children depends on what society actually wants, approves, and encourages. The author presents specific steps by which society can move to fashion a new economic priority for all children; to make the child central in the fight against poverty and inequity; to achieve a rational standard of human rights for our children; and to find, in individual lives, effective new approaches to positive parenting.

"This book argues that our society is inimical to children and has therefore devalued parents to such an extent that individual good parenting is not only exceedingly difficult but, ultimately, insufficient," Leach writes in her introduction. "All of us are shareholders in society's children and it is time we widened the focus of our attention from what is happening at the bottom, in individual families, to what is happening at the top in society as a whole."

Children First was published by Alfred Knopf, Inc., and is distributed by Random House. It is available in many libraries and bookstores. ■

WE LIVE IN AN ERA of increasing fatherlessness—when male role models are desperately needed. But we also live in a time of fear, when men who are involved with children are somehow suspect. Consciously or unconsciously, many childhood education professionals shy away from hiring male workers or encouraging male involvement in the classroom.

James Levine, Director of the Fatherhood Project at the Families and Work Institute in New York City, wants to change all that. His book, *Getting Men Involved*, recently published by Scholastic Inc., which also puts out the magazine *Early Childhood Today*, shows how men can be more a part of early childhood education and how schools can help them do it.

"The book is designed for education professionals," says Levine, "but also for parents who want their children's school to be father friendly."

The publication of this book coincides with the launch of Levine's Male Involvement Project, a nationwide campaign funded by major foundations to get men more active in the lives of young children through early childhood programs.

A father of two and a day-care worker in the 1960s, Levine tells of his original inspiration: "It was 1968 and I was dressed as the Great Pumpkin. To the 20 preschoolers gathered at my knee, it wasn't an unusual sight. It was circle time at Halloween and I was their teacher. To the children's parents it was very unusual. 'What do you really do?' they wanted to know. It is a question that never would have been asked of a woman. That moment a quarter of a century ago changed my view of the world."

Levine argued then, as he does today: "We will never find a solution to child care if we keep defining it as a women's issue instead of a family issue."

MEN AREN'T EXACTLY LINING UP to get involved with their children's preschools or day-care facilities, and child-care and educational professionals are justified in their irritation at male contentment with current stereotypes.

But some of the resistance also comes from women. While doing his national search for exemplary programs, Levine received a call from a woman who directs a preschool program in Kansas. "I've heard about your project," she said, "and I just don't understand why anybody would want to get more men involved. All our teachers are women, and we're doing just fine."

In calling for greater male involvement, Levine is not suggesting that women aren't doing or can't do a good job. But "the stereotype that women alone should care for children or that they alone are capable of caring for children limits the opportunities and talents of both sexes," he writes. "It leads women disproportionately into the caring professions without exploring a broader set of career options, and it keeps men from broadening their career options to the caring professions, despite their interests and abilities."

It also, as he points out, "perpetuates the devaluation of women and children, linking them together in a feminine world that is deemed less serious and important than the world of 'masculine' activities."

As men become more involved in early childhood programs, he predicts, there will be tensions between men and women that neither anticipated. "But there will also be new opportunities for dialogue and understanding."

Male involvement in a child's earliest years is essential if the role of fatherhood is to be seen, by the culture, as a quality that transcends insemination. When Levine uses the words "father" and "men" in the book, he means any significant male in a child's life—an uncle, grandfather, mother's friend, or volunteer, as well as the biological, step, or adoptive father.

"There is an enormous amount of father hunger among children in America: children who don't have a father living at home, as well as children whose fathers' work limits their contact. Getting more men involved in the early education of children won't restore the missing father in these children's lives, he writes, but it will help replace a narrow definition of fatherhood, "a vague abstraction or a stereotyped image taken from television—with a concrete and fuller sense of nurturant manhood."

HERE ARE SOME OF THE STEPS Levine recommends to attract and keep men involved in their children's preschools and other early childhood learning environments.

Say it loud. "Make clear on all announcements that children's fathers and significant men in their lives are welcome at your program. If mom and dad are both in the home, don't just address the letter to her, address it to him, too."

Say it often. "Your message about male involvement won't be convincing if you just say it at the first parent meeting." Follow through, throughout the year.

Display images of men. The halls and offices of one preschool described by Levine are lined with photos of kids and families—men and women. Because men are so naturally part of the pictures, the photos make a statement: "This is what we expect. This is 'normal.'"

Just ask. Some men do not participate simply because, unlike mothers, they are not asked to. "You have not because you ask not," says one preschool teacher quoted by Levine. Find out what men want. Levine suggests that preschool staff ask casual questions to find out what men want, and what they can offer. Take a male interest survey. Keep your eyes open. For example, a man's work clothes might suggest how he spends his day—and how he might help the school program.

Set up a men's discussion group. Offer fathers the space and opportunity to get together informally and just talk. Don't set the agenda for them.

ASK MEN TO HELP with specific jobs. "Often there is a particularly hard job that nobody at the center wants to do," Levine says. "Who can you call? The monthly men's group!"

Recognize hidden resistance from staff. "While it's likely that everybody on a staff will think it's a good idea to get men more involved in a program, that's not necessarily how they feel," according to Levine.

Recognize hidden resistance from mothers. At a Baltimore preschool, a mother's group met weekly for a year before staff realized the need to set up a men's group. "Again and again the women's discussion kept coming back to the anger they felt about men," says Levine. "Only after they felt safe talking about it among themselves could the women create a dialogue with men, which made them realize the men might need a special support group, too."

Recognize hidden fears of men. Often, what shows as male indifference is really a cover-up for deep-seated fears, according to Levine. "Some men feel incom-

See Fathers, Page 47

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Parent

Continued from page 36

and social success improves for children whose parents take an active interest in their education.

Too many parents, though—feeling overworked and overwhelmed in their own lives—leave the education of their children to the schools. Even the simple acts can sometimes slip away—things like asking questions *and* listening to answers about their day at school, taking an interest in their ideas, exposing them to new ideas, and volunteering for special classroom projects or field trips.

When we engage in our children's lives and their education, we send them a powerful message that learning is important and that we are making their success at school a priority.

State and national education goals increasingly recognize the important roles that families play in their children's education and the success of schools. This represents a fundamental shift in the ways schools operate and in the ways that teachers teach. It is just one of the many changes in education that administrators, teachers, families, and students need to address.

THE WORLD IS CHANGING AROUND US. We all want today's children and young people to leave our public schools with the tools to work successfully, appreciate lifelong learning, participate as engaged citizens, and lead the communities of tomorrow.

Very few parents, teachers, principals, elected officials, or community and business leaders will argue against the movement to increase academic standards for all children. But the antitax sentiment that prevails in many states and cities requires that we work in the political arena and the business community to seek equitable funding for schools. And this brings me to another form of advocacy that is essential in today's climate.

We clearly need to encourage our schools to develop new partnerships with community-based organizations that can match children with community volunteers and mentors. Organizations such as Self-Enhancement, Inc., SMART, and Friends of the Children in Portland.

We also need to advocate for funding so that the schools that face real challenges in reaching out to parents and families have the staff resources, training, and outreach workers to do so. And finally, we need to listen to the stories of how schools have successfully found new ways of reconnecting parents to their children's education.

It is essential for parents and families to be involved in their children's education, to build a relationship of trust and effective communication with our children's teachers, and to advocate for what is in the best interests of our own—and all other—children.

It is a path that can lead our children to success in school, and in life.

—Cynthia Guyer

Cynthia Guyer is Executive Director of the Portland Public Schools Foundation and the mother of two children attending Buckman Elementary School.

Fathers

Continued from page 39

petent with their kids; some fear they'll be rejected; some fear women have a special natural ability with children that they'll never have. Still others may have been abandoned or rejected by their own fathers and are acting out a repeat cycle."

Reach out to men from the community. Local businessmen, professional organizations, churches and synagogues, police, firefighters and high school students all make great resources for volunteers who can serve as role models to children.

These are just a few of the suggestions in Levine's book. Yale University's Edward Zigler, one of the founders of Head Start, says the book "has broken new ground" and "should be on the shelves of every early childhood program in the country."

And perhaps on every father's bookshelf.

—Richard Louv

Getting Men Involved, which is not sold in bookstores, can be obtained by calling Scholastic Early Childhood products, at 800-631-1586, or by writing for it c/o The Family and Work Institute, 330 Seventh Ave., 14th Floor, New York, NY 10001.

Richard Louv is senior editor, KidsCampaigns, and columnist for The San Diego Union-Tribune.

Correction

On Page 5 of the fall 1997 magazine, "Growing Up Gifted," several statements about gifted education in Idaho were inaccurate. First, the state does not monitor district programs and programs are not accountable. Also, a professional endorsement was approved last February, but the Legislature still needs to approve the proposed courses. If the endorsement standards (required courses) are approved, 20 semester hours of gifted education would be required, instead of 12 hours.

NORTHWEST EDUCATION

Quarterly magazine of the
Northwest Regional Educational Laboratory

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Learning to Read: The Foundation of Success in School

You are invited to send us article ideas, identify places where good things are happening, provide descriptions of effective techniques being used, suggest useful resources, and submit letters to the editor.

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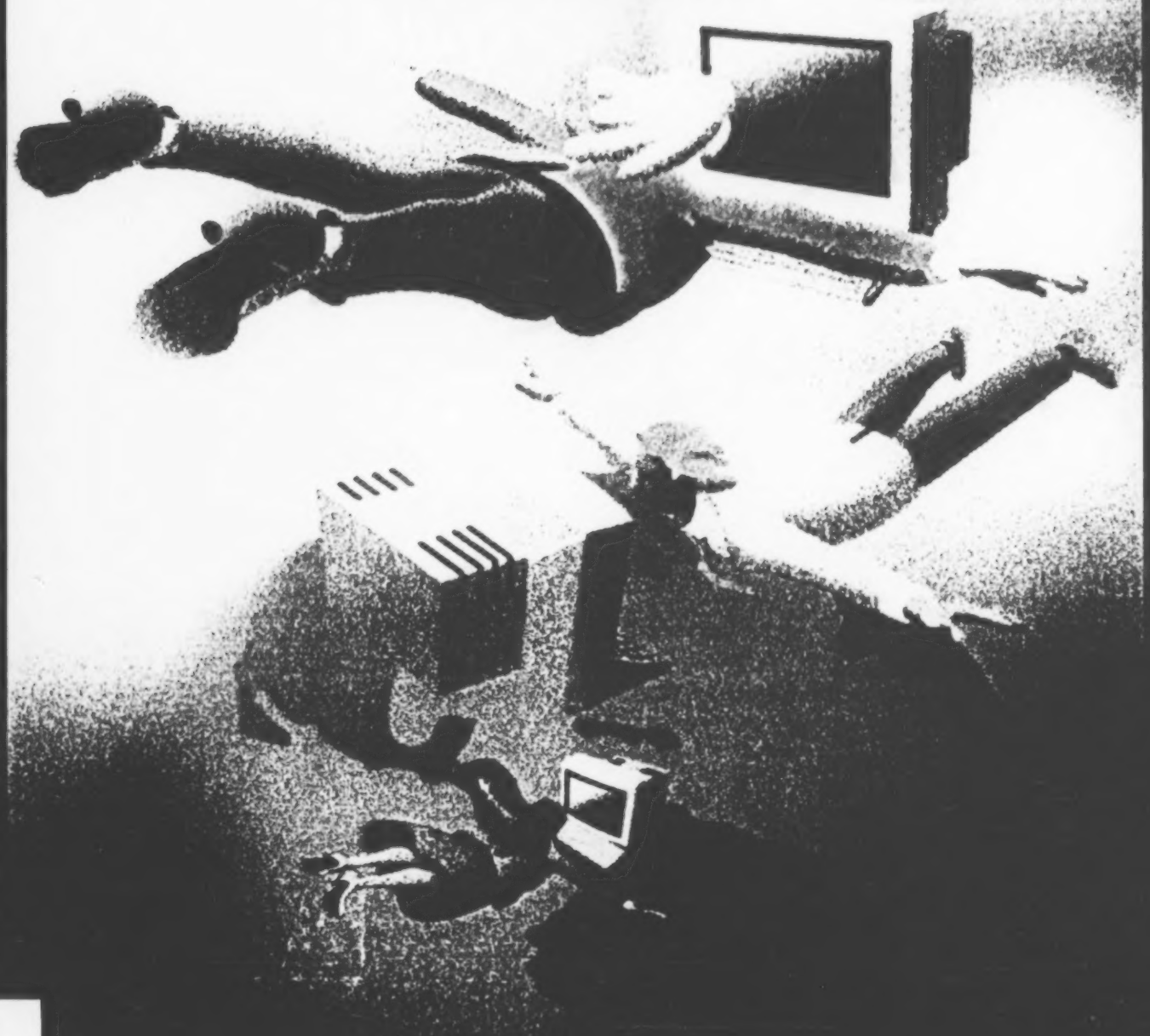

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TAKING OFF

A TEACHER'S GUIDE TO TECHNOLOGY

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VOLUME 3 NUMBER 3

SPRING 1998

THIS ISSUE

Taking Off

A Teacher's Guide to Technology

2 The Promise of Technology

10 SPECIAL REPORT: Flying High

32 Conquering the Computer

44 Going Solo

DEPARTMENTS:

40 In the Library

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Behind The Mystique

At 45, I'm about the age of the average American teacher. And like most teachers, I came of age when computers were just making a debut in the world beyond science fiction. The first computer I encountered was the giant mainframe housed in the bowels of Portland State University during the early 1970s. I remember sitting in a dim, windowless room, punching codes into manila-colored cards, carefully bundling them into thick stacks, and handing them to the computer operator at the counter. Behind closed doors, my cards were read by the mainframe to analyze data I'd collected for a research-methodology class. I went back the next day to pick up a printout of the results.

The setting, the process, and the machinery all seemed mysterious, intimidating—even a little ominous. (Those of us old enough to remember Hal, the sinister computer in the sci-fi classic *2001, A Space Odyssey*, can hardly be blamed for any lingering technophobia we may harbor.)

I successfully avoided touching a computer again until I landed my first reporting job in 1981. During my first days in the newsroom, I bumbled hopelessly with the word processor. Finally, the news editor, trying to suppress a snicker at my clumsy efforts to control my cursor, strolled over and offered to help.

That's where many teachers get stuck: In most schools, there simply isn't anyone available to stroll over and help. A mere 6 percent of elementary schools and 3 percent of secondary schools had a full-time computer coordinator in the building in 1995, the Office of Technology Assessment reports. And the training available to most teachers tends to be inadequate—delivered in a hit-or-miss fashion and focused on mechanics rather than content.

"Most schools cut corners on training," is the blunt observation of Christopher Conte in a recent report on education technology from the Benton Foundation.

Report after report calls on U.S. schools to double their investment in technology training. But until that happens, the typical teacher is largely on his or her own to explore, experiment, and innovate. In this issue of *Northwest Education*, we offer readers a glimpse inside classrooms around the Northwest where teachers are using technology skillfully to teach subjects as diverse as economics and ecology. We also offer a guide to getting off the ground, giving practical tips for using the Internet and selecting software. And a longtime teacher shares her strategies for getting the most from a lone computer in a classroom full of kids.

Our hope is to provide ideas and inspiration for teachers who want to embrace technology or expand their technological toolkit. Behind the mystique, technology is, after all, just plastic and wires. Its power for learning can be unlocked only by the skill, creativity, and daring each teacher brings to the classroom.

–Lee Sherman

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PHOTO BY DENISE JARRETT

THE PROMISE OF TECHNOLOGY

Multimedia computers, global networks, and other dazzling new tools of the Information Age have the power to transform the roles and relationships of teachers and learners—*if* teachers get the training and support they need

By LEE SHERMAN

The phone rings in the Montana principal's office.

"This is Mr. Whitehead," he answers.

On the line is a principal from Michigan. She's heard that Bruce Whitehead's school, Hellgate Elementary in Missoula, is a leader in education technology.

"I'd like to know what your scope and sequence is for your computers," she says.

"I don't *have* a scope and sequence for my computers," Whitehead responds.

The caller is stunned.

"But, but...how can that be? I don't understand," she sputters.

"We have a curricular scope and sequence, and computers are simply a part of that," Whitehead explains. "We integrate the computers wherever they will enhance the curriculum. We do not have a scope and sequence for technology per se."

It's not only hardware (five networked PCs per room plus state-of-the-art peripherals like digital cameras, multimedia presentation software, and flatbed scanners) that makes Hellgate a model for education technology. Rather, what makes Hellgate a standout is the way it blends gear with goals. Researchers are in unison on this point: The most amazing gizmos in the world won't help kids learn better unless those gizmos are linked to larger educational objectives.

"We are all so seduced by cool machines and the cool things they can do," says Anne Batey, a trainer and researcher with the Northwest Regional Educational Laboratory's Technology Center. "In our training, we try to keep teachers focused on the question, 'What do you want to do with ***kids***?'"

Writing in the fall 1997 issue of the *Kappa Delta Pi Record*, Dianne Kanawati defines "technological literacy" broadly to encompass not only the traditional computer-literacy skills in keyboarding, word processing, and spreadsheets but also in the latest generation of tech-

nologies—CD-ROM, hypertext, digitally enhanced video, e-mail, and the World Wide Web. But even mastery of these advanced skills, she warns, won't guarantee that students become better learners.

"As long as we regard technological literacy as an end in itself," she says, "it will leave us as directionless as computer literacy has done."

Researcher after researcher calls on educators to view technology as a means to a greater end—improved learning—and to keep that end clearly in focus as they work to find effective uses for such innovations as Web search engines. A roomful of brand-new PCs may wow parents at open house. But by themselves, computers are just a collection of microchips and circuitry. To justify the billions of dollars U.S. schools invest annually in technology, most commentators agree, technology must become the servant of curriculum in every content area, from geography to history to ecology.

"When technology is effectively harnessed to goals identified by teachers, schools, states, and national policymakers, it becomes a vehicle for learning that is powerfully attractive," writes Christopher Conte in *The Learning Connection: Schools in the Information Age*.

Learning *about* computers is not the same as learning *with* computers, researchers stress.

"It is important to distinguish between technology as a subject area and the use of technology to facilitate learning about *any* subject area," asserts the Panel on Educational Technology of the President's Committee of Advisors on Science and Technology in a recent report. "It is important that technology be integrated throughout the K-12 curriculum, and not simply used to impart technology-related knowledge and skills."

The panel's Number One recommendation to the president, in fact, is integrating technology across the curriculum.

"Although universal technological literacy is a laudable national goal, the panel believes the (Clinton) administration should work toward the use of computing and networking technologies to improve the quality of education in all subject areas," the panel writes in its *Report to the President on the Use of Technology to Strengthen K-12 Education in the United States*, March 1997.

Nationwide, schools are struggling to make effective use of emerging technologies. A scant 3 percent earned top marks from a recent study by a group of business and education leaders, including Apple Computer, Public Broadcasting Service, and the National Education Association. The CEO Forum surveyed 80,000 U.S. schools to rate their progress on President Clinton's "four pillars" of school technology: hardware, connectivity, digital content, and professional development. The "target-tech" schools—those that are making the most of technology to "achieve maximum educational benefit"—are strong in all four pillars. These elite schools have at least one computer (many of them multimedia) for every three students, onsite technical support, high-speed Internet access, and teachers who've received many hours of training in technology use.

Of the remaining 97 percent of U.S. schools surveyed by the forum, 12 percent were rated "high-tech," 26 percent were judged "mid-tech," and the rest—a startling 59 percent—earned a "low-tech" rating. In a typical low-tech school, classrooms lack Internet connections, and computers lack the speed or memory to tap the riches of the World Wide Web, with its network of colorful, exciting sites brimming with information (both valuable and trivial) from around the world. Most computers are clustered in a lab, isolated from the regular classroom. And training for teachers is minimal. Close to half, in fact, offer no technology training at all, according to the forum's *School Technology Report: From Pillars to Progress*, released last fall.

Across America, the gaps in equipment and connectivity are closing, spurred on by deep discounts in

the costs of wiring offered as part of the president's initiative to link all schools to the Internet by 2000. The numbers are impressive. The average ratio of students to computers, for instance, is now seven to one, compared with 125 to one in 1984. Although only 14 percent of classrooms were connected to the Internet in 1996, that was four times the number connected two years earlier.

But the growing infusion of machines and wires into U.S. schools shouldn't be mistaken for progress in teaching or learning, experts caution.

"Data on the numbers of computers, videodisk players, satellite dishes, or wired classrooms in schools can obscure crucial questions—including whether they're actually being used," writes Andrew Trotter in a special technology report published November 10, 1997, by *Education Week*.

Even the massive outlays of money and manpower needed to link classrooms to the global network are small compared to the challenge that will follow: making those connections meaningful and useful for the nation's teachers and students. Billions of dollars-worth of gleaming equipment is in danger of sitting idle—or being used only for games or drills—unless teachers learn how to blend the Internet into their lesson plans and how to match software to educational goals.

Teachers who've been out in front, successfully folding computers and other technologies into their curricula, typically have been lone pioneers—men and women with an affinity for machines, risk-takers who relish new challenges and have the time to pursue them. But these trailblazers are the exception. More typical is the teacher who is overwhelmed by the thousands of software packages on the market. Equipment glitches and shortages turn others away from technology. Simple fear stops many teachers. Others don't see how technology can improve on their tried-and-true methods. Even eager technology "wannabes" often are stymied by the steep learning curve that confronts the technology novice.

"When the computers on students' desks are mysterious devices to teachers, it's unreasonable to expect effective integration into the curriculum," observes technology expert Chris Dede in an October 1995 interview in *Educational Leadership*.

A deep chasm remains to be crossed—that of insufficient training for teachers—if technology is to become an agent for real change in the nation's classrooms. Researchers are nearly unanimous in their finding that piecemeal, ill-timed, off-target, or nonexistent training is the biggest hindrance to widespread integration of technology into U.S. classrooms.

Teachers who had taken at least nine hours of technology training were a small minority—just 15 percent—in 1994, Richard Coley and colleagues report in a 1997 study from the Educational Testing Service. Several Northwest states were doing somewhat better than the nation as a whole. Washington, in fact, led the country, with 28 percent of its teachers boasting nine or more hours of technology training. Alaska ranked next in the region with 21 percent, followed by Montana with 18 percent. Both Oregon and Idaho came in with an average figure of 15 percent.

"When the computers on students' desks are mysterious devices to teachers, it's unreasonable to expect effective integration into the curriculum."

The dollars spent for training are equally inadequate. Only 15 percent of the typical school's technology budget goes toward training teachers. The bulk of the money—55 percent—is earmarked for hardware, with the remaining 30 percent being spent on software. "Despite over a decade of investment in educational hardware and software, relatively few of the nation's 2.8 million teachers use technology in their teaching," the U.S. Congress, Office of Technology Assessment (OTA) concluded in 1995. "There are many teachers whose use of technology is marginal,

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limited, and unenthusiastic."

The training gap translates to an access gap for kids. Last year in *Computers and Classrooms: The Status of Technology in U.S. Schools*, Coley and colleagues reported that just 9 percent of fourth-graders, 10 percent of eighth-graders, and 19 percent of 12th-graders said they used a computer for schoolwork "almost daily." On the flip side, 60 percent of fourth-graders, 51 percent of eighth-graders, and 37 percent of 12th-graders said they never used a computer for schoolwork.

The OTA looked at the prevalence of computers in basic academic subjects. Only 9 percent of secondary school students reported using computers for English class, 6 to 7 percent for a math class, and 3 percent for a social studies class. In elementary schools, computers are mainly used for basic-skills practice. In middle and high schools, they are used mostly for word processing or other "computer-specific skills." More open-ended, problem-solving, or student-directed activities (desktop publishing, developing math or science reasoning with computer simulations, gathering information from databases, or communicating by electronic mail) are "much rarer," the OTA reports.

"Most in education's own ranks are still more comfortable with chalkboards than with a computer mouse," writes Mary Ann Zehr in *Education Week*'s special report on technology. The National Center for Education Statistics found that only one in five teachers regularly uses advanced telecommunications for teaching.

The President's Panel on Educational Technology and other researchers are calling for a doubling of the current training budget—to 30 percent of total technology expenditures. But simply spending more on training isn't enough. Researchers warn against relying on one-shot workshops or classes that focus on mechanics rather than content. Training should give guidance on choosing software that will help teachers meet local, state, and national goals for student learning. It should provide strategies for making efficient use of one or several computers in a 30-student classroom. And it should be bolstered by ongoing, onsite support—an expert whom teachers can call on when equipment fails and a mentor they can seek out when questions pop up.

"What teachers actually need," the panel writes, "is indepth, sustained assistance as they work to integrate computer use into the curriculum and confront the tension between traditional methods of instruction and new pedagogic methods that make extensive use of technology. Such assistance should include not only purely technical support, but pedagogic support as well, ideally including classroom observation within the classrooms of successful technology-using teachers, periodic consultation with more experienced mentors, and ongoing communication with other teachers grappling with similar challenges."

Coley and colleagues recommend that staff development for technology integration should:

- Be driven by a clear understanding of the local needs of teachers
- Emphasize hands-on experience, especially for technology use training
- Use peer coaching rather than lecture format
- Integrate technology training into other staff development programs in the school and district
- Involve administrators as participants with teachers in staff development programs on technology use and integration in the curriculum
- Provide the release time needed for teachers to apply what they learned in training
- Provide follow-up support for implementation of technology skills learned in training
- Give teachers access to resources needed to implement what was learned in training
- Facilitate communications among teachers—use telecommunications technologies to help teachers communicate and share their professional experiences

One training strategy strongly supported by research is the development of teacher-mentors or

onsite master teachers who can guide their co-workers toward technological proficiency. About 60 Washington teachers—some from very isolated schools—are being groomed as technology mentors through a project developed by the Northwest Regional Educational Laboratory's Technology Center in partnership with Washington's Education Service District 112. The project's goal is to identify and nurture building-level leaders—"a person in every building who is willing to share with other adults," says Anne Batey, who coordinates staff development for the project. The project, funded by a grant from the state of Washington, not only provides technology-rich classrooms but pays for substitute teachers to fill in for participating teachers while they develop leadership and mentoring skills with educational applications of technology. [For information on the TELDEC project—Technology and the Essential Learnings: Developing Effective Classroom Projects—contact Anne Batey at (503) 275-9605 or bateya@nwrel.org.]

The kind of "indepth, sustained assistance" researchers recommend takes not only money, but also that equally elusive commodity: time. The OTA, in fact, calls teachers' time shortage the "biggest barrier" to technology use in classrooms. Schools that have excelled in bringing technology to learning have provided teachers with time to attend trainings, explore software, seek help from colleagues, and plan lessons that incorporate new technologies. These teachers have time to investigate online projects, visit Web sites, search for curriculum materials, and exchange ideas with a worldwide network of educators. They have time to simply "mess around" on their computer, the OTA reports.

"Teachers are given very little compensated staff development time, and there are multiple, competing demands for this time," the OTA observes. "Unless there are significant changes to the rhythm of the school day or changed incentives for giving teachers more time to learn and experiment with new technologies, this barrier to technology use will remain immense."

Pinpointing "onsite assistance from a full-time computer coordinator" as an especially critical resource for teachers, the president's panel notes that not even 5 percent of schools have such a full-time professional on staff. And even when a full-time coordinator is in the building, she typically devotes the bulk of her time to hardware and software maintenance and to teaching or supervising students—not to helping teachers.

> "Most in education's own ranks are still more comfortable with chalkboards than with a computer mouse."

For teachers who want to plunge in on their own, avenues beyond the schoolhouse are available. Throughout the Northwest, for example, universities and educational service districts (ESDs) operate technology resource centers for teachers. Services vary from center to center, but may include software collections, curriculum materials, workshops, inservice training, planning assistance, hardware and software consultation, discussion groups, and information libraries. In Alaska, British Petroleum is funding the development of 15 "Teacher Exploration" centers around the state. [Contact your state education department, local ESD, nearby university, or the Northwest Regional Educational Laboratory's Technology Center for information about resource centers in your area. For more guidance on getting started with technology, turn to "Conquering the Computer" on Page 32.]

Even with an ideal mix of training and ongoing support, the president's panel estimates that the typical teacher will need three to six years to "fully integrate information technologies into his or her teaching." The Office of Technology Assessment suggests five years as "the appropriate time frame for large-scale technology infusion."

8

"Effective technology implementation takes more time and effort than many anticipate when first undertaking technology initiatives," the OTA reports. "Change is not sudden and dramatic; it takes hard work on the part of many people over time to see the benefits of the endeavors."

More than a few observers have questioned whether the pay-off in student learning is worth the huge investment of taxpayer dollars and teacher effort. Writing in the *New York Times*, technology critic Ethan Bonner recently panned the "glorified video games" that sometimes pass for education on computers. He questioned the "vague but firm belief that access to information, regardless of quality, must be good." Theodore Roszak lamented finding "an awful lot of junk, advertising, and trivia" on the World Wide Web. Samuel Sava, executive director of the National Association of Elementary School Principals, expressed his skepticism this way in a recent *Education Week* article: "I'm very concerned over the rush to purchase hardware when we do not have enough evidence on how best to use computers to help youngsters achieve in reading, mathematics, writing, et cetera. My second concern is that a number of school systems, in order to purchase the hardware, have begun to eliminate such key programs as the arts."

Most experts agree that educators should not put all their school-improvement eggs in the technology basket. Technology alone does not contain the golden key that will unlock knowledge, skill, and wisdom for all children. "Computers should not be seen as the replacement for traditional methods of learning," muses Amy Derby, resource librarian for the Northwest Laboratory's Technology Center. "Rather, I think the old and the new augment, supplement, and enhance each other. A visit to a virtual museum is not the same thing as a visit to a real museum. Or, to put it more personally, I don't want to curl up with my PC in front of a cozy fire to read."

But the question, Does technology boost student performance? has not yet been answered. Isolating the effects of computers from the overall classroom culture has proven difficult, researchers say. "Additional research is needed," the OTA asserts, "to develop a deeper understanding of which instructional uses of technology are most effective and under what circumstances, and how teacher interaction with technology plays into this effectiveness."

There does appear, however, to be a clearly established link between technology and attitudes. When students use high-tech tools, studies show, their motivation soars. A 10-year study by Apple Computer found that students who had access to learning tools such as multimedia computers and video cameras became more independent learners, worked more cooperatively, and shared their expertise spontaneously, among other changes in outlook and behavior.

These changes reflect what many advocates now see as technology's greatest educational asset—its ability to free teachers and students from the rigid roles of old: teachers as spouters of knowledge, students as sponges to soak it in. In this brave new world of learning, students play a more active role in their own education. They speculate, explore, experiment, discover, share, collaborate, present. Their tasks are often "authentic" (real-world) projects in which they gather data from their school, neighborhood, or community. Their findings can contribute to scientific understanding or change public policy. In this new kind of classroom, students take responsibility for their own learning, solve complex problems, and apply reasoning skills to current issues. "Instead of absorbing an established body of knowledge delivered to them by teachers," Conte writes, "they are developing skills to seek, sift, analyze, and convey information themselves. Instead of studying in isolation, they are working on teams. And instead of regurgitating what they have learned back to their teachers, they are communicating their findings to a much wider public."

Such a seismic shift in learning requires a sometimes-wrenching shift in teaching. One technology-using teacher describes his new role as "facilitator,

stage director, resource manager, master learner, discussion leader, observer, and evaluator."

Such changes will not be easy or automatic for most teachers. "If the goal of using technology is to change how teachers teach and how children learn," the OTA counsels, "then teachers will need support and training to learn new pedagogical methods. More technology or more use of technology will not be sufficient to assure other innovations or reforms."

Every technology, no matter how dazzling, needs a talented teacher to guide its use in the classroom. Otherwise, as the OTA warns, computers may be used merely as "electronic blackboards."

"A gulf exists," says the OTA, "between the ambitions of technology experts and software developers and the practice of teachers in classrooms. Helping teachers use technology to facilitate different educational philosophies and teaching practices will require substantial change in curriculum, instructional methods, and teacher understanding." ■

SCHOOLS FOR A NEW MILLENNIUM

The National Endowment for the Humanities (NEH) is launching a three-year initiative, Schools for a New Millennium, to strengthen schools' and teachers' competence and creativity with new humanities materials and technologies.

Projects to be supported will:

- Involve a whole school.
- Leverage public-private funding partnerships to support "extended year" professional development for a critical mass of the school's instructional staff.
- Focus on challenging, substantive humanities topics.
- Support hands-on training for a school's teachers over a significant time period (four to six weeks), so that teachers develop confidence with the technology and create challenging and engaging classroom uses that enrich the school's curriculum.
- Establish links with parents, as well as local colleges and universities, to provide ongoing support, evaluation, and improvement.
- Use the Internet to disseminate their work.

Applications must be received by April 1, 1998 (or by April 1, 1999, for next year's program). Guidelines and application forms are at http://www.neh.gov/html/guidelin/schools.html. For other information, e-mail education@neh.gov or call (202) 606-8380.

BEST COPY AVAILABLE

Flying

THE *Queen's Beans*

By LEE SHERMAN

MISSOULA, Montana— For David Bixby, steering a roomful of fifth-graders through the treacherous shoals of learning is like climbing the icy north face of Mt. Rainier.

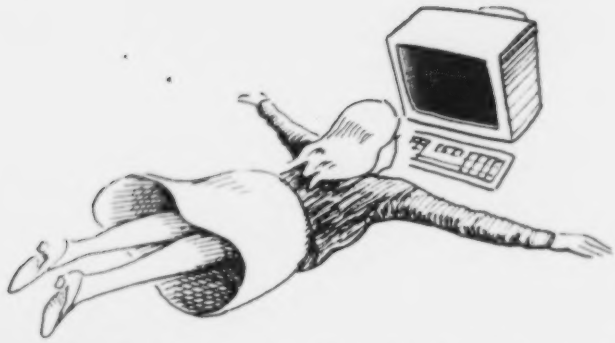
"There's a potential for disaster all the time, and there's also the potential for glorious success," says Bixby, a first-year teacher at Hellgate Elementary School in Missoula, Montana. "I get the same kind of high from teaching that I get from mountaineering. Things can go so well, and they can go so wrong, and I need to continually improve my skills."

Hellgate Elementary offers plenty of opportunities for Bixby and his colleagues to build their skills. A hotbed of technology set implausibly in the wilds of western Montana, Hellgate has five computers and a color printer in every classroom. It has digital cameras, LCD (liquid crystal display) projectors, a flatbed scanner, and access to a sophisticated lab at the middle school next door, where students can experiment with real-world skills such as computer animation, robotics, broadcasting, rocketry, and Web page design. Field studies—an ongoing archaeological dig, for example, and a habitat study carried out jointly with the University of Montana, the U.S. Forest Service, and Montana Fish, Wildlife, and Parks—provide more opportunities for linking technology to learning goals.

This high-tech haven was just the place for Bixby, who had used state-of-the-art hardware and software to crunch data and map coastal waters as a hydrographer (an underwater mapmaker) for the National Oceanic and Atmospheric Administration. He weaves his techno-tools into all corners of the curriculum. For example, his students will become amateur surveyors and hydrographers when they use rods to measure the depth of local McCormick Pond, and then enter the data on spreadsheets to graph cross-sections of the pond (software: Microsoft Excel). Bixby hopes to find a piece of "shareware" on the Internet that can use the students' data to create a contour map—the first one ever made of McCormick Pond.

Posted around the room are Web sites for general research, such as the self-described "mother of all search engines" (http://www.mamma.com), or for specific information, such as the journals of Christopher Columbus (http://www.fordham.edu/halsall/source/columbus1.html). Bixby's kids build skills in tracking down data through Internet scavenger hunts.

His students' research reports take the form of "virtual field trips" where classmates can share, for example, an exploration of Mt. Rainier, a walk on Mars, or a wild-mushroom hunt. Students are learning to bring their multimedia presentations alive with music (software: Microsoft PowerPoint). One recent morning, for instance, Nicole, a student with Blackfeet ancestry, was noodling with the sound mixer on her computer, trying to coax just the right tones from her *Indian Moments* CD for her presentation on Montana's



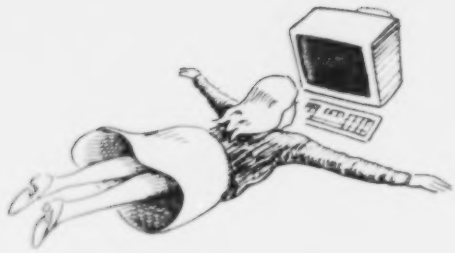
HIGH

From the 'burb of Bellevue to the burg of Helena, from the metropolis of Portland to the hamlet of Shelley, Northwest teachers are guiding students toward learning goals on the wings of technology

Illustration KENNY HIGDON

102

Taking Off: [illegible] to Technology



Native American tribes.

Even free time in Bixby's room is laced with technology. Instead of offering extra recess as an incentive for good behavior, Bixby pulls in hordes of kids every Thursday for a planetarium presentation on a Power Macintosh (software: MacAstro). Night sky images projected on a screen can zoom in for a close-up view of planets, stars, and whole galaxies. By year's end, students will have added celestial navigation to their accomplishments.

A recent lesson on mathematical pattern analysis had Bixby's kids transfixed. The problem—about a Web-savvy queen and a math whiz named Bob in a land where the coin of the realm was a golden bean—went like this:

Once, a long time ago, the queen of a far-away land needed to hire a gardener to take care of her garden of a thousand roses. Soon after she put a notice on her Web site saying she needed a gardener, she received an e-mail message from a mathematician. His letter stated that work in the math field was hard to come by and he wanted to take a try at gardening. The queen replied, "Since it sounds like you have very little gardening experience, I would have to start by paying you 100 gold beans for the first year. After that, for the next 15 years, I will increase your pay by 100 gold beans each year. For surely you will become a better gardener and worth more beans each year."

The mathematician, who called himself Bob, replied with a fax: "I cannot take such a generous offer. I propose that you pay me just one gold bean the first year, and then as I become a better gardener, double my pay each year until I retire in 15 years."

The queen created a spreadsheet to determine whether she should take Bob's offer or stick to her own plan.

The students' task was to respond to the following instructions and questions:

- Describe your plan for solving the problem.
- What will she find out? Make a prediction.
- What is the total amount of money she will pay with her plan?
- What is the total amount of money she will pay with Bob's offer?
- Describe how the bar charts of each plan are different and why.
- Explain how you solved the problem.
- Explain whether your prediction was correct or not.
- Even though Bob may not be a very good gardener, is he a good mathematician? Why or why not?

Pairs of students confer at their desks as Bixby strolls between desks, offering guidance and answering questions. Student pairs begin heading for the waiting computers, spilling into the spare classroom next door to attack the problem. Using a spreadsheet (software: Microsoft Excel), Jeff and Jesse collaborate on entering the queen's beans in one column, Bob's beans in the next. They then instruct the computer to fill in the numbers for the next 15 years. Across the room, Derek has an insight. "Hey, she was trying to cheat him," he protests, as he discovers, along with Jeff and Jesse, that the queen's offer nets Bob only 12,000 beans. Bob's plan, on the other hand, would earn him 32,767 beans.

The color printer begins to hum, and soon out rolls Jeff and Jesse's bar chart—a graphic depiction of the ever-widening discrepancy in projected earnings between Bob's and the queen's plans, generated instantly by the computer.

"I liked that," Jeff enthuses afterwards. "That was a cool problem."

Remarks Bixby: "I could never get them to be on-task for so long in paper and pencil. They really get focused when they work on the computer."

Teaching kids how to use spreadsheets "makes a valuable pre-algebra lesson," Bixby observes. "Spreadsheet functions, formulas, graphs, and charts are algebraic." Spreadsheets also give students "a clear visual layout of numbers and number relationships independent of the child's drawing and organizational skills," he notes. Another advantage of keyboards over graphite: Kids can think more deeply and broadly without getting bogged down in computations. While computational skills are important for kids to master, an error in arithmetic can mask the student's mastery of a larger concept, Bixby notes.

"The computer can perform higher-order operations on data much more quickly than students could do with paper and pencil," Bixby explains. "It extends their thinking."

Getting kids to reason, analyze, and evaluate—the "higher-order" kinds of thinking that countless reformers and critics say schools should cultivate—is Bixby's true quest. Setting students loose on the Internet, and then having them assess the quality of information they encounter, is an authentic exercise in critical thinking, he says. "There's no limit to who can place information on the World Wide Web,"

he says. "Consequently, there's no guarantee as to the quality of information on the Internet. Students need to become critical information users."

Bixby suggests that teachers have their class develop a system for rating the quality and reliability of Internet sites. A checklist might answer such questions as: What is the goal of the site—education, advertising, entertainment? Who maintains the site—university, government agency, nonprofit organization, business? Is the site trying to persuade the user to adopt certain ideas, or is it just providing factual information? Does the site give sources for its information?

Summing up the plusses of computers for students, Bixby says, "Technology in our classroom offers immediate feedback to students during problem-solving activities.

"And," he adds, "it gives us a direct link to the real world."

TEACHER'S FOOTNOTES

On presentation software:

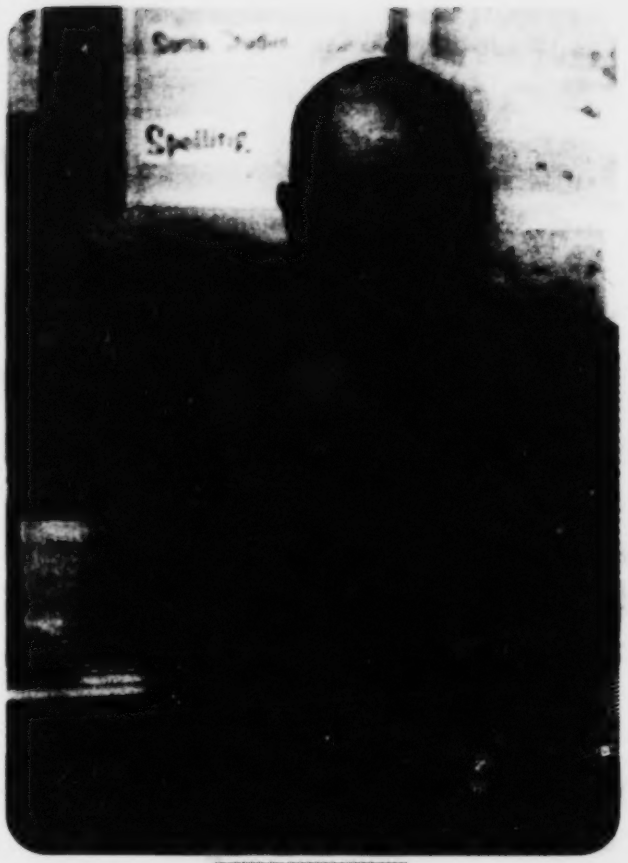
"We use Microsoft PowerPoint, which includes PowerPoint Viewer as part of the package. The viewer is a small program that plays presentations but does not allow you to create them. It's used for taking presentations on the road. You can use the viewer to show your presentation on any computer so that you don't have to install the whole software package. It's available for free distribution."

On the story problem:

"The Queen's Beans problem is based on a traditional Chinese tale about a wise peasant who tricked the emperor into paying him a single grain of rice on the first day and doubling the amount until, in a surprisingly short time, the kingdom was bankrupt." The children's books, *A Grain of Rice* by Helena Clare Pittman and *One Grain of Rice: A Mathematical Folktale* by Demi, are based on the tale.

On astronomy software:

"The astronomy software I use with my Macintosh, as well as other software that will run on PCs, is available as shareware from http://www.ralentz.com/old/astro/home-astro.html."



PHOTOS BY ROBERT MERRIMAN

LITTLE WIZARDS

By LEE SHERMAN

PHOTO BY CAROLE ARCHER

PORTLAND, Oregon— The kindergarten classroom at Markham Elementary School brims with the usual kindergarten props and materials: Easels and felt-tip markers in rainbow colors. Tubs of Legos and big wooden blocks. Colored paper, blunt-tipped scissors, buckets of crayons, big picture books. A friendly ferret snoozing in a cage. Personal computers.

Wait, back up. PCs? How does the hum of hardware blend with little voices singing silly songs or with tiny tennis shoes pattering on linoleum? How do CD-ROMs mix with scissors and crayons? Does technology really fit into an early-childhood learning environment with its emphasis on play and exploration?

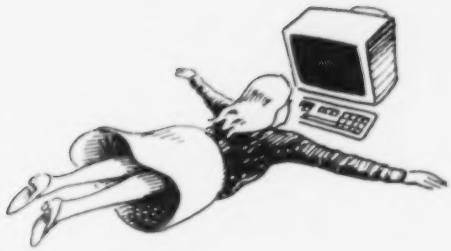
Like a child's hand in a warm mitten—if it's done right, says teacher Gene Casqueiro.

"Technology must become a natural part of the classroom environment," Casqueiro says. "It needs to be an extension of everyday life." He strives to weave computers seamlessly into activities geared to young children's growth and needs.

His efforts are evident in his room, where students divide the bulk of their time between math activities ("Math Tubs") and literacy activities ("Centers" and "Writers' Workshop"). One recent morning, when each child was occupied at one of the dozen "centers" set up around the room, technology was everywhere. Yet it was folded so skillfully into the larger fabric of the room, a visitor might easily miss it in the hubbub of building, drawing, cutting, pasting, paper rattling, and collaborative chattering.

"Boys and girls, remember: Exercise your brains and not your feet," Casqueiro gently admonishes as the children settle into their projects. At the Pet Shop Center, Kayli works intently, designing and drawing a digital toy ladder for Fraidy-cat the ferret, who yawns and stretches in his cage after a morning nap. Next to Kayli's PC is a sign bearing the challenge for the week: Using KidPix, can you create a toy for our classroom pet? (Software: KidPix Studio by Broderbund.) Across the room at the Block Center, a sign reads: USING BLOCKS, CAN YOU CREATE A DESK FOR A COMPUTER AND PRINTER? Alexis and Avecena are busily building a computer desk to hold a set of cardboard boxes mocked up to look like computer components. Beside the girls, Alex is taping strands of orange yarn to another set of cardboard components. "I connected everything to the hard drive," Alex announces as Casqueiro stops by to check on the children's progress.

Over in the Science Center, where the posted challenge is CAN YOU EXPLORE THE INSIDE OF A COMPUTER USING A MAGNIFYING GLASS?, Karen wears a white lab coat and, sitting at a table strewn with disassembled



computers parts, peers intently at the magnified jumble of rainbow-colored wire on a circuit board. Nearby, Ibrahim sits at one of the classroom's six PCs in his lab coat, viewing a CD-ROM called *How Multimedia Computers Work* (published by The Software Toolworks Inc.) which at this moment is explaining the mechanics of a mouse. A Kurdish refugee from Kuwait who doesn't speak much English, Ibrahim seems undaunted by the English narration on the CD.

"Computers break the language barrier," remarks Casqueiro, who has four Kurdish refugees, two Somalis, and two Spanish-speaking kids among his 27 morning students.

Meanwhile, over in the Easel Center, Josh is finishing a cheerful drawing of his mom standing beside a potted flower. CAN YOU CREATE A PICTURE PROGRAM FOR THIS COMPUTER? is the challenge for this center, where Casqueiro has drawn a simple outline of a computer on each drawing pad. Josh's "MomWare" is displayed on the make-believe monitor. The boy completes his work by coloring the components in vivid shades of orange, green, and blue.

On days when Casqueiro's kids do Math Tubs instead of Centers, computers are evident, as well. While some children make paper chains or fill in circles with crayons during a recent lesson on patterns, other kids use KidPix to create patterns of virtual rubber stamps. Sabrina giggles as frogs multiply wildly on her computer screen. "Look at those frogs!" she says, gleefully. "They're so funny!" After some experimenting, she abandons the frogs in favor of lollipops alternating with wiggly worms. Kayli creates a pattern of two eggs, two raccoons, two eggs, two raccoons. Chloe makes a series of rubies, emeralds, diamonds, and rabbits.

A quick thumb through Griffin's math portfolio reveals his fondness for elephants, which pop up again and again in computer-generated patterns with ostriches, snakes, and other creatures. Griffin's elephant fixation seems linked to his love of Irvin, the gregarious elephant puppet who, from time to time, pops out of Casqueiro's "transporter," a mysterious bucket covered with all sorts of technical-looking gizmos and thingamajigs. Irvin led a recent lesson on "Computer Wizards," in which he hung photos of computer components and accessories (such as a mouse pad, a printer, and a floppy disk) on a felt board, and asked the students to name them. When "programs" showed up on the board, Irvin couldn't restrain himself. "I know one of the programs!" he blurted out excitedly. "KidPix! KidPix is one of the programs!"

Casqueiro likes KidPix because it's a child-directed program, rather than a computer-driven program—one that leads the student through a series of drills, for example. "Too many parents and teachers see the computer as a glorified worksheet, and it's not," he says. "Open-ended programs like KidPix permit a broad range of possible strategies and outcomes."

The Number One message he hopes to instill in his kindergartners, he says, is that people drive technology. "Too many children think the computer controls them. A child should learn that technology can be controlled by someone, and that he or she can be that someone."

TEACHER'S FOOTNOTES

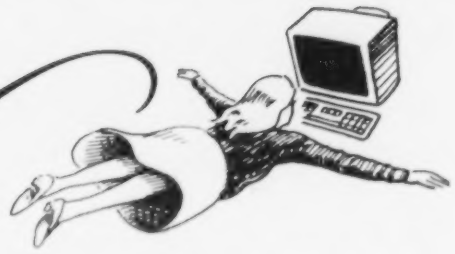
On software:

"Bailey's Book House, Millie's Math House, and Sammy's Science House by EdMark are absolutely fantastic."

On money:

"In the Portland District, teachers get about $80 to $100 a year to buy everything—curriculum materials, supplies, books, software. With a CD running about $34, that doesn't go far. A recent school improvement bond measure that paid for computer hardware and installation was a little bit thin on the software side. So you have to be creative. I've been able to find some additional money through the PTA, and I found one software publisher that was having a two-for-one special. Through our parent volunteer program, parents can come in and read to the students and then donate a book—or a piece of software. And I bought all my KidPix software myself."

Wood Wind



By CATHERINE PAGLIN

BELLEVUE, Washington— It's mid-morning in the Technology Education class at Highland Middle School. The "dirty room" buzzes with students drilling, sawing, and sanding. Wood dust fills the air. Teacher Dennis Crane, an intense, long-legged bicyclist, rushes from one end of the 75-foot-long shop to the other, by turns advising, correcting, and encouraging his 26 seventh-graders.

Today the class is in the middle of a unit on magnetic levitation, the principle that allows the bullet trains of Japan to reach speeds of 310 miles per hour. Students are at all stages in the process of designing, building, testing, and documenting the performance and characteristics of a MagLev vehicle shaped from a 2-1/2" x 2" x 6" piece of balsa wood.

"We're trying to get it aerodynamic," says one student, sanding furiously at his block of wood.

"Frank, come here Frank, check out the drag," shouts another student as he peers at his vehicle through the window of a wind tunnel.

A small group of boys and girls clusters around a stretch of track to witness the maiden voyage of a red-and-black, cigar-shaped car. The car—velcroed to a flat, rectangular plastic platform with four magnets on its underside—is levitated by opposing magnets in the track. Externally powered by a two-second burst of air, the aerodynamic but impractically shaped vehicle travels an impressive 24 feet, 7 inches.

At 10:53 a.m., a chorus of "Clean up, clean up" arises, and there's a flurry of activity as students push brooms, put away tools, and turn off machinery.

After a four-minute break, Crane is back at work. The next section of Tech Ed—his third of the day—begins in the adjoining "clean room," which houses computer terminals, a Quick Cam digital camera, video monitors, design drawings, and models.

At this school, Technology Education—a required class for all seventh-graders— is where low tech and high tech meet. Here, students lay hands on every kind of tool—from wrench to wind tunnel, from drill press to database, from screwdriver to digital camera.

"There's an image of Tech Ed as what used to be called shop," says Crane, recalling that when he began teaching at Highland 13 years ago his students made ice scrapers and oven hooks from patterns and plans. "Whereas shop was a really valid program at the time, Technology Education is a lot more valid now. It takes a problem-solving approach rather than a project-making approach."

Documentation, including electronic documentation, is a major piece of the new approach, as is evident in the MagLev project. Over the last three years, Crane's Tech Ed classes have built up a MagLev vehicle database containing close to 400 entries. Today most students are just creating a file and entering the basics—name, class period, student number. Later they will enter their vehicle's weight, the drag it created in the wind tunnel, a drag rating (a ratio between the drag on the MagLev vehicle and the greater drag created by the original, unshaped block of wood), and the distance the vehicle traveled on the track. To round out their database entry they will snap a Quick Cam photo of their finished, painted creation.

"When the computer end of things came in as part of this project, one of my goals was to model the use of technology," says Crane. "Every student in seventh-grade Tech Ed will be using technology to gather information."

Though he has done the MagLev project without the electronic tools found in the clean room, Crane finds the database a powerful motivator for his students. Early in the project, before students begin brainstorming design ideas, he can project data and images from previous years onto his two video monitors. Students can see how former students—such as students' older brothers and sisters—have solved the problem, and what kind of performance results they achieved.

Initially, Crane was concerned that students would want to duplicate the most successful designs in the database, but this hasn't been a problem. He tells his students, "That may be a beginning point. *He* did OK, but *you* can do better" and "I'd hate to say that *that's* the way to do it when *you* have a better idea."

The shared database has the potential to extend the MagLev project outside the school. Crane has already collaborated with an instructor at Tillicum Middle

PHOTOS BY CATHERINE PAGLIN

School, also in Bellevue, on a unit on bridge design. In a database shared between the two schools, students entered digital photographs of truss-style bridges they built from 25 pieces of 1/4" x 1/4" x 13" pine wood. They recorded each bridge's weight, the type of adhesive used, the weight load at which the bridge failed, and the strength-to-weight ratio.

"This was really a motivator, because kids wanted to make sure their bridge would beat Tillicum's," says Crane. "Because it was going on concurrently, the kids would just come in and go 'I want to go online. Did they get any more in?' and 'Where are we now?'"

Ideally, Tech Ed classes in the district's five middle schools, and even from schools beyond, would feed information into the shared database, says Crane.

However, it takes more than an electronic connection to make meaningful links between schools. Crane and his colleague have not been able to coordinate the MagLev project because of differences in test equipment. Tillicum has a more sophisticated wind tunnel and track set-up than Highland; therefore, student test results would not be comparable. Even the bridge design project, for which the two instructors strove to standardize their test equipment, cannot always be done simultaneously because of scheduling differences—Highland is on semesters, Tillicum on trimesters.

But Crane is convinced that the effort required to set up computer-based projects and solve practical difficulties pays off in the long run. "Using instructional technology in a project like this makes for a much better project," he says. "Because it's computer based, it's easy to adjust and modify to meet new needs." For example, Crane notes that as the projects evolved, he added new information categories and the digital photos to the MagLev and bridge databases. "Once you get past the frustrations, the final project is well worth it."

TEACHER'S FOOTNOTES

On the assignment:

"Before building a vehicle, students must identify the problem; brainstorm and sketch from two viewpoints a minimum of 14 possible solutions; do quick three-view drawings of their three best solutions; do a very neat and accurate three-view working drawing of the best design; and write a list of working procedures (processes and machines in the order in which they will be used). After building and testing the vehicle and entering the required information in the database, students must render the vehicle in two-point perspective. A second part of the assignment requires students to design a logo for their MagLev vehicle company.

On the software:

"We use FileMaker software for this project for several reasons. FileMaker is a database in which you can design a variety of different layouts. Once you know how to use the program, it's fairly flexible, which makes it easy to modify to better meet the goals of the lesson. Students are able to search, sort, and modify their own records as well as compare their results to the results of their classmates. But probably the major reason we use the software is that FileMaker allows you to share data over a network. Students are able to log on to any computer connected to the building or district network, launch the program, enter a password, and then have access to view and even modify records. FileMaker has security features that permit you to designate different passwords for different levels of security (student level versus teacher level). We have found it to be useful for many grade-level projects, such as the eighth-grade cultural fair and sixth-grade book reports."

Roe Show

By DENISE JARRETT

PHOTO BY DENISE JARRETT

ANCHORAGE, Alaska— Daniel has been to the creek where the salmon are spawning, and he wants you to know something: "The fish are nasty and slimy." The recording of the second-grader's voice coming from the computer speaker is soft and careful. These are the words he wrote, too, above his drawing of a person standing in a creek. The figure is holding a hapless salmon in the air. In the water below, a luckier fish darts between the figure's legs.

The drawing is bold and clever, and the boy's recollection of touching the salmon at the creek is vivid. His teacher, Sue Olsen, is delighted.

"Daniel is a very good student but very, very quiet," she says. "He is bilingual, and his family only speaks Chinese at home. So when he showed us the drawing he did on the computer, we thought it was terrific. We all thought the word 'nasty' was a great word choice—funny and apt. The visit to the creek was a very distinct experience for him. Something about working on the computer allowed him to express that, where he probably wouldn't otherwise."

Daniel and his classmates at William Tyson Elementary School are participating in a salmon incubation project sponsored by the Alaska Department of Fish and Game. The project is the focus of a year-long science unit on cycles in nature.

Last fall, Olsen and fellow teacher Cheryl Ondra took their students on a field trip to Campbell Creek in South Anchorage. There, Fritz "Fishman" Kraus, the biologist who founded the program, took a male and female coho salmon from the stream and artificially fertilized the eggs. Making an incision down the female's underbelly, Kraus showed the students the red roe glistening inside. The students were awed.

"They were overwhelmed with the sheer number of eggs—they just couldn't believe it," recalls Ondra. "They wanted to know, 'What would she do with all of those babies?'"

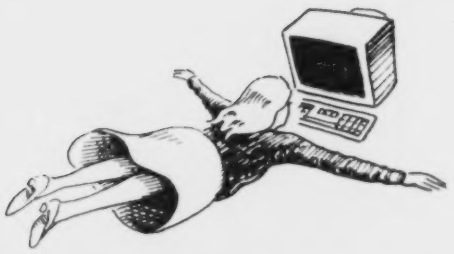
To get an idea of what it's like to rear all of those "babies," Kraus helped the students place about 250 of the eggs in a cooler for transport back to their school. There, the students lowered the eggs into a specially prepared fish tank where the eggs will incubate for about eight months, first growing eyes, then a rudimentary tail and "yolk sac," and, finally, the tiny fins of the fry. By May, the fry will have grown large enough to be released into Taku-Campbell Lake, a landlocked lake inside the city limits. To avoid contact with wild salmon stocks, the fry must be released into a lake that doesn't feed into a stream.

As the students observe the development of the salmon eggs for several months, they record what they see and learn in drawings and writing assignments. Each day, they log the water temperature and any physical changes in the eggs in a notebook next to the fish tank.

Ondra and Olsen, who team teach, recently added another dimension to the salmon-cycle curriculum: computer technology. Computers allow students multiple ways of expressing themselves, the teachers say. The explorative nature of the Internet and desktop publishing and presentation tools such as Kid Pix Studio or ClarisWorks increases students' motivation, creativity, and problem-solving, they say.

Working with Chery Bradley, the school's Title I technology specialist, they have integrated the computer into all aspects of the salmon project. Their students create their drawings and writings on the computer, incorporating recorded narration and a photograph of themselves into a multimedia presentation. Using a desktop presentation program (Kid Pix Studio), they are building a slide show that will take viewers from their creekside adventure, through each stage of fish development, and to the shores of Taku-Campbell Lake where they will set their fish free.

But the project doesn't end there. Students will collect their slide shows into one file and, with the help of their teacher, copy it from a computer to videocassettes.



Then they will take their videos home to show their parents what they know about the role of cycles in nature, fish development, and multimedia computer technology.

Many parents are still uncertain about the computer's role in the classroom, Olsen says. They don't know what to think when their children use terms like linking, storyboarding, and downloading.

"Many of them have a hard time comprehending what their children are talking about," she says. "Sometimes parents think they're just playing. But how do children learn? They learn through their play."

When students show their parents their slide shows, Ondra says, parents clearly will see the curriculum being taught—earth science, reading, writing, editing. They will see the concepts their children are learning: the role of cycles and timelines in nature; salmon development; and the importance of salmon to Alaska's culture, environment, and economy.

The computer can be a valuable tool to help teachers meet the needs of diverse learners. Three-quarters of the students at Tyson are Alaska Native, American Indian, African American, Hispanic, Asian, or Pacific Islander. Some speak English as a second language. Many of their students are thriving, the teachers say, because the computer facilitates their expression, helping them to demonstrate their knowledge in a variety of ways—visually, orally, and in writing.

Computers can help students in many aspects of their learning, Bradley agrees.

"Each time the students work with their pages of art and writing, and assemble them into a multimedia presentation, they revisit those core concepts," she says.

The computer is especially suited to helping students create their own representations of knowledge. As they draw, students can choose to add computerized design elements such as patterns, borders, and colors. They can place graphs, photographs, clip art, or animated transitions between slides. They can write text onto their drawing, and they can include sounds or a recording of their own voice. And they can do this with a high degree of autonomy.

This gets students excited.

"Any time a child gets excited, you think, 'Wow, this is a good thing,'" says Olsen. "When you get excited about something, you learn it better. As an educator, you want to find what sparks the interest of your students. When you find it, it's like the light at the end of the tunnel."

TEACHER'S FOOTNOTES

On getting started:

Olsen: "For practice, students can start off with a simple slide show about their favorite foods. So when they start the big salmon project, they'll have an idea about what it's going to look like in the end, how it's going to run like a movie, and how they can put their voice in there. It gives them time to play with the program before jumping into the big project. You can do other projects on cycles that require less time by using seeds, frogs, worms, or water cycles. The life cycle of a butterfly is a really easy one and the kids love it when the butterflies pop out of their pupas!"

On hardware:

Bradley: "In order to record students' voices, computers need to have either an internal or external microphone. To copy the slide shows from a computer to a videocassette, you need an S-video cable that plugs into your CPU and into the back of a television that is hooked up with a videocassette recorder. You play the slide show on the computer while the VCR is recording."

On the Internet:

Ondra: "We have to have written parental permission for the kids to be able to use the Internet, as well as for us to publish students' work on our Web site." Olsen: "We usually explore the Internet as a whole class. From my computer, I put the sites up on a television monitor and we talk about what we find. But we don't download anything. Their slide shows are for their direct experiences only. We've found some good sites on salmon cycles:

- http://www.state.ak.us/local/akpages/FISH.GAME/notebook/notehome.htm
- http://www.state.ak.us/local/akpages/FISH.GAME/cfmd/geninfo/research/genetics/kids/kids.htm
- http://www.riverdale.k12.or.us/salmon.html

On salmon/trout programs:

Alaska Department of Fish and Game, Anchorage, Fritz Kraus, (907) 267-2265; **Washington** Department of Fish and Wildlife, Olympia, Bonnie Long, (360) 586-3106 or e-mail, longbkl@dfw.wa.gov; **Oregon** Department of Fish and Wildlife, Portland, STEP Coordinator, (503) 872-5252, extension 5431; **Idaho** Department of Fish and Game, Boise, John Gahl, 800-422-9453 (within Idaho only) or (208) 334-2635; **Montana**, Montana Fish, Wildlife, and Parks, Helena, Dave Hagengruber, (406) 444-9736.

SCIENCE

By TONY KNEIDEK

PHOTO BY ROBERT BOWER

SHELLEY, Idaho— The 1979 nuclear accident at Pennsylvania's Three-Mile Island complex seems a long way from a high school classroom in this Eastern Idaho town tucked into a bend of the Snake River. But Shelley High School junior David Huntsman sits at a computer creating a three-dimensional truck like the ones that next year will begin transporting nuclear fuel rods damaged in the accident from one Idaho storage facility to another 35 miles away. At a nearby computer, classmates Stefanie Empey and Jeff Neitzel make three-dimensional models of the trailer that will carry the radioactive load and of the cylinders that will store the spent fuel rods.

The students, working from designs provided by engineers at the Idaho National Engineering and Environmental Laboratory, are involved in more than a complex classroom assignment to create a 3-D video. Once completed, the students' graphic representations may well add to public and congressional understanding of the risks of moving nuclear waste—in this case from "wet storage" to a safer "dry storage" facility at the national laboratory about 60 miles northwest of Shelley.

"I currently have a scale model of the (waste transportation and storage) system that I haul around in a small suitcase," says Joe Carlson, manager of the Three Mile Island-Unit 2 Dry Storage Project for the Idaho National Laboratory. The $30 million project involves the transport of 344 canisters of nuclear core materials "severely damaged" in the Three Mile Island accident. Scheduled to begin in 1999, the project "is highly visible and politically sensitive," he notes. Carlson says the video being developed by the students could be used for training workers, developing procedures, and making presentations. "Depending on the detail and depth that these kids can take their project, I could see a broad range of uses."

The student work is a part of the Science Solutions class they take at Shelley High School. Teacher Mike Winston, who developed the curriculum now being used in high schools throughout southeastern Idaho, describes it as an integrated, problem-solving, service-based approach to education. "The class is based on schools actually helping to solve community problems—on kids working and getting involved in the issues in their community," he says.

Winston has developed about 30 alliances with environmental, engineering, and energy agencies, the medical community, the school board, and state agencies such as the education and transportation departments. From the alliances come partners and mentors who work with the students. "We screen the projects to determine the ones with the most educational value," Winston says. "It takes a lot of cooperation."

But it's not just the students who benefit. "The businesses have something vested in the projects," Winston says. "They provide the mentors, and we're working together on viable solutions. This helps them as well."

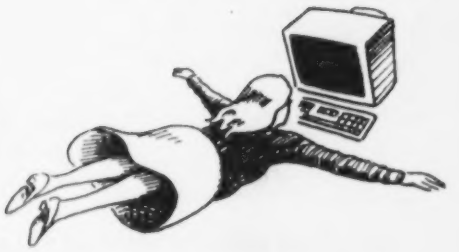
Science Solutions, a year-long elective at Shelley, involves each student in one of about 12 projects during the school year. Many, but not all, of the projects require technological applications. Winston developed the approach after interning one summer at the Idaho Energy Laboratory. "I just went around and started asking the scientists and engineers what they needed from the school and students," he says. "The main skills they were looking for were communication, problem solving, and working together. I was surprised that they didn't stress the technological skills as much as these more generic ones."

As part of the curriculum Winston created, students are:

■Building a Science Solutions Web site (http://www.shs-solutions.net/) that will include information on Greater Yellowstone businesses, recreational activities, educational opportunities, the network of about 10 Science Solutions schools in Idaho, products and services available from the class, and other information.

■Using geographical mapping software (ArcInfo and ArcView from the Environmental Systems Research Institute) to develop a state-of-the-art school bus transportation tracking and maintenance system. Once completed, the system will include virtual aerial views of all bus routes with a variety of click-of-the-mouse-options to highlight individual routes, identify each house on the route, measure distance between stops, provide medical emergency information on riders, and identify names and numbers of children at each stop.

SOLUTIONS



■ Identifying and mapping wells in the Snake River aquifer.
■ Restoring cutthroat trout to rivers through a project with the Idaho Department of Fish and Game
■ Tracking the demise and restoration of wolf populations in the Yellowstone area.
■ Working with learning-disabled middle school students on a plant-cloning project.

The students' animated, three-dimensional videos (software: 3-D Studio MAX R2 from Kinetix) provide a visual tool that will enhance public understanding of complex social and political issues, says junior Josh Toy. "With the three-dimensional models we're creating, we can slice the images, show the insides, the outsides, and how everything fits together," says Toy, who mentors his classmates in the uses of software.

Winston says that the use of the sophisticated 3-D Studio software, most common in upper-level college architecture programs, is well within the grasp of high school students. In fact, he notes, the manufacturers of the software were having a difficult time making inroads at the high school level and came to Winston and his students.

"They wanted us to take it on as a project so they could show the state Department of Education that it was a wise investment for high school students," Winston says. "The state was skeptical, very skeptical."

But Winston's students now use the software routinely. "We just go in and do the tutorials, experiment," says Toy. "That's where the fun is. That's really what 3-D animation is about—learning through experience and experiments."

Toy's latest project is a video about the wind tunnel that the Idaho Department of Energy Laboratory proposes to build. Researchers would use the tunnel to study the effects of hurricanes, tornadoes, and other natural disasters on different structures. The video takes viewers inside the tunnel, where a virtual camera pans, rotates, and revolves to provide a full range of views. It shows a string of 160-foot-tall louvers that can alter wind direction and velocity and gives viewers a graphic look at the impact such changes have on a structure.

All work is done to scale, and students work with architects and engineers to ensure that their creation is an accurate portrayal of the design. Toy worked on the project throughout the summer as a member of a Science Solutions Action Team at the Idaho Energy Laboratory. Team members, who are selected through an application and screening process, work in the field and in the lab. They receive a fellowship and college credit through the Associated Western Universities—a consortium of Idaho colleges and universities. This year, Toy works on the wind tunnel project 15 hours a week for the laboratory.

Through their Science Solutions class, students also have responded to the needs of their local school district. In one recent project, students worked under tight timelines to create a new district map that met state legislative requirements. "The zones for school board elections were out of compliance," Winston says. "The populations in the zones were supposed to be within 10 percent of each other. They were not. One was more than double the population of the others. The school board tried to fix this, but couldn't."

Two students learned how to use the ArcView mapping software from a mentor at the Idaho Energy Laboratory, then developed a new map with population distributions that were within 3 percent to 4 percent of each other. "The redistricting needed and got legislative approval," Winston notes with pride.

Shelley Science Solutions students have traveled the country to showcase their skills and projects at conferences and meetings. "We get a lot of requests," Toy says. "We can pick and choose what we want to do now."

TEACHER'S FOOTNOTES

On changing roles:
"I had a choice to make: If I wanted the kids to have these sorts of opportunities, then they could wait three years for me to learn more, or I could make it available and get out of their way. Now I can spend a lot of my time encouraging and motivating kids, and getting out in the community creating links to the classrooms. Teachers must experience the changes that have taken place in the outside world in order to make their training relevant."

On sophisticated software:
"The kids are coming out of here knowing this stuff, mastering software that colleges are not even offering yet. If you give it to kids, they'll learn it. And someday, the colleges will catch up to our kids."

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Chaucer Lives

By LEE SHERMAN

PHOTO BY CAROLE ARCHER

WHITE SALMON, Washington—Imagine opening a dog-eared textbook on ancient history or classical literature. Now imagine that instead of holding only silent words and static pictures, the book is alive with voices, music, and moving images: A three-dimensional Attic amphora rotating on a marble pedestal. The prologue to Chaucer's *Canterbury Tales* narrated aloud in Middle English. A scene from King Lear captured on camera, with an excerpt from the movie soundtrack "Interview with the Vampire" playing in the background.

At Columbia High School, teacher Peter Knowles has found a way to give new life to old stories with sound, color, video, animation, and dimension. Instead of just spewing back information on exams or essays that wind up in the trash can, Knowles' sophomores display their learning in virtual (digital) museums created on the classroom's six Macintoshes (software: HyperStudio). Museum visitors can ride virtual elevators or click on icons to move through the six wings, each with its own student "curator" and theme:

- Group Membership: Ancient Civilizations
- Legacies: Classical World to Renaissance
- Living with Change: Technology
- Exploring Limits: Revolution and Exploration
- Beyond Hate: Leadership and the Holocaust
- Special Exhibits: Research, Writings, and Other Sustained Projects

Just before Christmas, the six-student teams spent a class period visiting and rating each other's museums for the first three units. As they explore from wing to wing, the visitors can see the blending and mingling of content from two "linked" classes: Knowles' world history class and Lois Yake's world literature class. On exhibit is everything from politics to poetry to pottery.

Catching the elevator to the Ancient Civilization wing, visitors to one team's museum find two overlapping circles representing the city-states of Sparta and Athens. Clicking on icons arrayed in the circles reveals comparative traits of the military, government, and other aspects of the ancient cultures. Another museum features a colorful map of the ancient world. Clicking on a civilization, such as Egypt or Sumer, visitors get a close-up map of that area. Another click brings up critical attributes—such as leadership, occupations, religion, and agriculture—of each society. Posted on another wall of the wing, an essay on literary genres explores the distinctions between the ancient storytelling traditions of legend, myth, fable, parable, folk tale, and epic.

"Wow, this is some amazing stuff! Awesome!" one student enthuses as he takes a ride on a virtual elevator to the next wing, the Classical World. There, visitors can hear a student recite the first 18 lines of *Canterbury Tales* while they scroll through the text, which appears onscreen as an illuminated manuscript. Further exploration takes visitors to a room displaying classical art—Michelangelo's *David* and Botticelli's *Birth of Venus*. When visitors click on the sculpture or the painting, up pops a descriptive paragraph on that masterpiece. The click of another icon brings up a reference list citing sources for the images, which were scanned from textbooks. Knowles stresses the importance of crediting authors, photographers, artists, and publishers whenever images or text are borrowed from books or Web sites—and getting permission to use others' images or excerpts for museums that go online.

In the third wing—still "under construction" for most teams—

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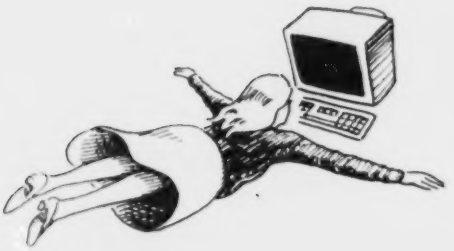

visitors see evidence of technology's role in cultural change. Displays include timelines of the Industrial Revolution; essays on Isaac Asimov's *I, Robot* (a collection of short stories that delves into the ethics and trade-offs of technological advances); and this original poem, "Ode to My Computer," by student Davy Stevenson:

My new computer,
so suave, so sleek,
Has 24XCD-ROM at its peak.
A 233MHz Pentium chip,
With MMX technology,
will make you flip.
A K56 modem, the fastest yet,
To help me surf the Internet.
A built-in 100MB Zip drive,
A TV to watch MTV Live.
Bill Gates the newspaper
front-page made,
Oops, now I need to upgrade!

The museums—which account for 25 percent of students' course grade for history—are not without wit and whimsy. Some wings, in fact, are mainly showcases for hopping frogs, hovering helicopters, flying beanies with twirling whirligigs, and clever sound effects like *kerplunk!* and *boing-boing*. Says Knowles, "HyperStudio has tons of little gizmos like that." His philosophy: "You've got to let kids get that out of their system."

Besides making history and literature more visual—and therefore more tangible—for students, the museum project gives kids extra incentives to aim for excellence, Knowles says. For one thing, students draw upon their work—reports, quizzes, exercises—throughout the school year as they develop their exhibits. No longer are assignments destined for the recycling bin. The museums, Knowles says, help cement students' learning as they return to it again and again.

"We're looking at the museum as a permanent repository of work that the students are creating," says Knowles. "They're starting to care a lot more about the quality of the work they produce."

Another incentive is the audience. The museums are public places. Students can wander in and view their classmates' creative and intellectual efforts. And, to expand the visitor base exponentially, the best museums will be posted on the Web, where browsers from around the world can make virtual visits (look for the museums on Knowles' home page at http://edtech.esd112.wednet.edu/teldec/knowles/index.html). At year's end, Knowles plans to invite the community in for a "grand opening" of the virtual museums. Awards will be presented for the most outstanding exhibits. Notes Knowles, "When you increase the audience, you really do increase students' interest and effort."

In yet another community outreach, Knowles hopes to link the virtual museums to an actual museum, Maryhill Museum of Art, which graces a windswept bluff near the school in the Columbia Gorge. With Maryhill's eclectic collections that include "an incredible American Indian basketry and pottery exhibit," the museum is a rich historical and cultural resource practically on the school's doorstep.

The museum project, Knowles says, helps prepare students for 21st-century styles of information acquisition and manipulation. "If they acquire this information on Sparta and Athens, and they've manipulated it into an essay, can they also manipulate it into a visual display or into a sound bite?"

Editor's Note: Peter Knowles is a participant in the TELDEC teacher training project co-sponsored by the Northwest Regional Educational Laboratory's Technology Program and Washington's ESD 112 Educational Technology Support Center. *See Page 7 for more information.*

TEACHER'S FOOTNOTES

On the software:

"With HyperStudio, there's a real easy way to create 3-D animation by putting any object—say an Indian basket—on a lazy Susan and then, using a digital camera on a tripod, taking 32 pictures of the object as you turn it around. Then you animate it, and it becomes an exhibit that shows up as a graphic on the screen. When you move the cursor over the object, the cursor becomes a little hand, which the viewer can use to turn the object around onscreen. And it doesn't take that much memory."

On visual elements:

"For the comparison of Sparta and Athens required for the Ancient Civilization wing, a lot of students just took their essays (an earlier class assignment) and threw them up on the wall of the museum. That's why I require visual elements for every wing, so students don't just have four walls of writing. That becomes kind of tedious. Scrolling through text is not the best way to present or acquire that information."

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SHELF TALK

By CATHERINE PAGLIN

LAKE OSWEGO, Oregon— Cindy Kim's classroom at Westridge Elementary School has a homey, lived-in feeling. The decor includes three well-worn couches, a bookshelf filled with student favorites, round tables instead of square desks, and cubbyholes jammed with art supplies. The informal surroundings match the comfortable way her fifth- and sixth-grade students interact. This afternoon, crammed into a corner, four of them jostle each other, bickering good naturedly about whose turn it is to use the two Macintoshes and freely exchanging comments and advice.

"Kyle, do you know how to make the earth blue? Adam, do you know how to make the earth blue? Kelsey, do you know how to make the earth blue?" A problem with the usually cooperative, electronic painting tools prompts Zack to query his classmates. Kelsey offers her solution, then stares at the screen in disbelief when it doesn't work: "That should be blue!"

Kim's students are using integrated software (ClarisWorks) to make "shelf talkers"—informational tags that hang off the edge of a retail shelf under a product. In this case the products are children's books; the shelf talkers are for a local, independent book chain. The assignment combines elements of the reading, writing, and visual arts curricula, while giving students the chance to make something that serves a purpose in the world outside of school.

PHOTO BY CATHERINE PAGLIN

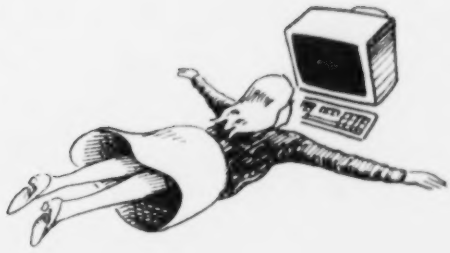
"We always try to integrate our curriculum and naturally incorporate computer technology skills into it," says Kim.

Student book choices range from popular fiction with titles like *The Voice on the Radio* and *The Face on the Milk Carton* to classics like Jules Verne's *Journey to the Center of the Earth* and Walter Farley's *The Black Stallion*. The shelf talkers include the title and author of the book, a few descriptive sentences meant to hook the reader without revealing the book's ending, an illustration, and the student's name, grade, and school. Students must write the text in the word processor. Clip art is not allowed.

Zack's shelf talker on *Journey to the Center of the Earth* reads:

"If you like adventures you must read this book. Imagine you are Oliver Lindenbrook, a well known scientist. You are in the middle of the earth being sucked into a whirlpool with your band of brave explorers. On your team you have the wife of one of your colleagues, one of your students, and a Icelander named Hanz. Will they ever make it out? Or will they be doomed to live in the center of the earth FOREVER!

The book's title is in red. Behind the text floats an image of the earth. Below is Zack's computer drawing of a toothy, green dragon. The text and graphics are laid out in a column on the width of half a letter-size piece of paper cut lengthwise. When completed, the shelf talker is mounted on colored paper, laminated, and folded approximately in half (widthwise) so it can hang off the shelf in



Kim's class and the one at the bookstore.

Some students have put thought into issues such as what style or color of font is most appropriate to their book. A girl writing about *The Black Stallion* uses a dark, flowing script which she feels expresses the mysteriousness of the horse. A boy writing about a book set in World War II Japan puts its title in red, matching the red suns on his illustrations of the Japanese flag.

Last year, Kim had students begin the project by hand. "I gave them a sheet of paper to work with and said, 'Write it in handwriting, do your drafting on paper,' and they had such a difficult time handwriting, knowing where to lay out, how big to write, how little to write to get all their information in. We tried it on the computer after that, and it was so much easier to edit, to work with, to include things, and even the graphics."

Working with the computer encourages the students to look to each other when they need help. "Some kids know more about computers than others," acknowledges sixth-grader Darcy.

"With one teacher and 29 students—or as your numbers increase—it's harder and harder to get to each child," says Kim. "The computer's a great place for kids to practice teaching each other, sharing with each other, problem solving. And they're real problems, and everyone's is a little bit different."

The computer-based project also creates a natural forum for students to comment on each other's work. Today, classmates in the computer corner encourage one boy to experiment with different colors for the book's title: "Why don't you try dark blue?" says one. "Why don't you just make it black?" says another.

"When you bring someone else's eye on to it, it's so much easier and faster for a student to edit right there and then—testing it," says Kim. "You can't test a different color if you've already colored it [by hand], unless you redo it and start over."

Kim structures the shelf-talker assignment with students' computer habits in mind: "We try to have them do content first, *then* go back and do all the enhancing, because their initial action is to go for the graphics and fonts, styles, and all of that stuff."

Last year her class made shelf talkers at the end of the year when students had already had lessons on many types of software.

"Last year they used skills they already had . . . so they were taking it and putting it together for the first time," she says. "This year we used it as a beginning lesson tool for painting and drawing. So you can really use it as a culminating project or use it as a project to introduce some skills."

Kim likes the fact that on the computer, students who want to explore different graphic techniques can do so, while students who don't like to take risks can undo their work as quickly as they did it. And though using the computer is required for the text portion of the assignment, she builds in additional flexibility by allowing students, if they wish, to illustrate the shelf talker by hand.

Says Kim: "Parents have different philosophies about what role the computer plays, so we do try to balance, and give students choices."

TEACHER'S FOOTNOTES

On integrated software:
"ClarisWorks includes painting, drawing, word processing, database, and spreadsheet, and it's a great price. It gives students a lot of experience with all different types of applications. ClarisWorks seems to be something that a lot of schools are using and have readily accessible to them. For this project we use the word-processing, painting, and drawing portions."

On printing:
"I always tell them to print in black and white until we're ready for the final copy because the color cartridges are not exactly the cheapest things."

THE HUMAN CONNECTION

PHOTO BY DENISE JARRETT

By DENISE JARRETT

ANCHORAGE, Alaska— Tears are a part of fifth grade. So when Randall sits wiping his flushed cheeks while the rest of the class digs into their book bags, teacher Pam Lloyd kneels by his side. It's a matter of homework turned in late. In Lloyd's class at Kincaid Elementary School, there are consequences for breaking the rules. But there are also opportunities to set things right. A few soft-spoken words and a hand on the shoulder, and Randall is back in the action.

Like any good teacher, Lloyd strives for balance in her teaching. Discipline and fair play. Expectations and choices. At the center lies a conviction that human connections provide the foundation for teaching and learning.

With its powerful communication capabilities, the computer has become one of Lloyd's most valuable tools in facilitating these connections. But it requires balancing, too. Technology's effectiveness in the classroom, she says, is only as good as the teacher and her relationship with her students.

"The computer is a tool," says Lloyd. "The human part is what really makes the classroom. If I had a choice between the two, I could do without the computer, but I could not do without the human interaction. That's what makes the bond between teaching and learning."

When a teacher integrates technology into good instructional practices, says Lloyd, she gains a new dimension to her teaching that can help motivate and engage many of today's students.

"Kids are coming to us from such media-rich environments," she says. "Even kids from poor socioeconomic schools (in the Anchorage school district) are media-rich in their homes—Nintendo, television, radio. So, I think they learn better when they're in a classroom where they have lots of technology available to them. That way, they have different ways to present their learning. I could teach the same lesson without technology, but they probably wouldn't be able to show me their depth of understanding."

Though hers is a media-rich classroom, Lloyd strives to make the technology transparent. It nearly is. A visitor has a hard time finding the five Macintoshes, eight AlphaSmart keyboards, and two Apple Quick Take cameras. Like hidden faces in camouflage art, the computers in Lloyd's room are overshadowed by a forest of shapes and colors: wall displays and mobiles; books, books, and more books; overflowing resource tubs; and an "aqua corner" with fish tank and whale display.

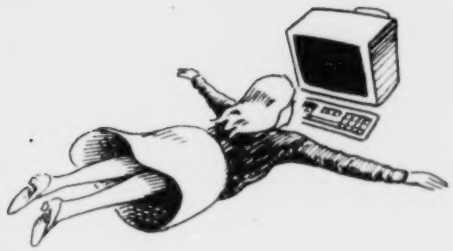
Lloyd also seeks to make technology transparent in another—more important—sense. She wants her students to reach for technology as readily as reaching for a pencil. If they need to create a graph, they can do it with a spreadsheet program. If they need to research the climate of Florida, they can search the Internet, among other resources. If they need to communicate what they've learned, they can use a multimedia presentation program to present their knowledge. This is part of being technologically fluent—an increasingly necessary skill, says Lloyd.

"Information is coming at us so fast that there's no way we can know it all," she says. "The problem for kids is how to look at that information and make a judgment or decision about it: Is it good information? What do I do with this information now that I have it? So kids need to be technologically fluent, which means knowing how to use technology to get the information you need, and the best information available."

Lloyd has integrated the computer into almost every aspect of her teaching. While studying about energy, for instance, her students use the Internet to research energy sources in the United States, getting material from such Web sites as Energy Quest, created by the California Energy Commission (http://www.energy.ca.gov/education/index.html), and the National Energy Education Development Project (http://www.energyconnect.com/need/).

"I do an Internet lesson at the beginning of the year," Lloyd says. "I explain that information on the Internet is not always valid—that unlike book publishing where there are guidelines, there often aren't any editors checking what goes onto the Internet. I explain where the most reliable information can usually be found; what '.com', '.gov', and '.edu' mean. We break down what 'http://www...' means, and we talk about domains, about hypertext markup language (HTML)."

After searching the Internet, the school library, and the classroom book collection, student teams create brochures on natural resources in a region such as the Midwest or New England. They write text for their brochures using a word processing program (software: Microsoft Word) on a Macintosh computer or AlphaSmart keyboard. (AlphaSmarts are word-processing keyboards that can be used as a substitute on a short-term basis when a regular computer is unavailable. After



composing on the AlphaSmart, students can download their document to a regular computer.) Students illustrate their brochures by downloading maps and pictures from Web sites such as Weber Publications' *The 50 States of the United States* (http://www.scvol.com/States/) and Microsoft's *Encarta Online Schoolhouse* (http://encarta.msn.com/EncartaHome.asp). Students create graphs and charts depicting the country's energy production and consumption in a spreadsheet program (software: ClarisWorks).

Linking the energy curriculum with geography and history, Lloyd involves her students in online educational games such as the Global SchoolNet Foundation's GeoGame (http://www.gsn.org/project/gg/). Students from around the world compete to identify each other's hometowns from clues such as latitude, weather, and land and water formations.

To demonstrate what they've learned about energy, students create a multimedia presentation that they share with their parents on Computer Family Night. They begin by creating a storyboard on paper, sketching out how they want their presentation to look. Then, in HyperStudio, they create "cards" that contain text and graphics, including a photograph of themselves taken with an Apple Quick Take digital camera. Students place icons, borders, and patterns on their cards to make them visually coherent and attractive. Many include scanned images, animation, and sound. Students then group these cards in a "stack" that becomes their presentation. A few resourceful students link their stacks with other students', creating a mosaic of dozens of cards. This spring, they will place their presentations on their own Web pages.

Reflecting on how technology has helped her achieve a strong connection with her students and their parents, Lloyd offers this anecdote: "One of my students is from South Africa and every six months he and his family go back to renew their visas. The parents didn't want to pull Jeremy out of school, but they were going to be gone for a month. I asked them if they had a computer and Internet capabilities in South Africa, and they said yes. So I developed a Web page and put his assignments on it. I created vocabulary and geometry sites, a fun site, and links to other Web sites. Jeremy and I communicate by e-mail, and he talks about his homework with other students by e-mail, too. That's an example of how technology can be wonderfully effective."

TEACHER'S FOOTNOTES

On Internet safety:
"I talk to students about getting into sites that aren't appropriate. I tell them that I can find out at any time where they've been on the Internet by looking at their computer's cache and history files. I tell them that if they accidentally get onto an inappropriate site, that they should click 'stop' and come tell me. I also give them a security talk about how important it is not to give their personal information to anyone on the Internet."

On Internet searches:
"I generally do the Internet searching for students, because I know what it is I want them to visit, and I don't want them to be free-searching during their one hour of lab time. I bookmark lots of links and place them on a Web site for students to look at. When I do allow students to search, I have them use Yahooligans (http://www.yahooligans.com/), Alta Vista (http://www.altavista.digital.com), or Dogpile (http://www.dogpile.com/custom/index.html). Alta Vista is my favorite search engine because you can fine-tune your searches."

On teaching technology:
"I think my best advice is to learn about the technology you'll be teaching, just as you would if you were teaching math—you'd develop a depth of knowledge about it. Teach students basic computer skills, and then let them explore. Once they know how to use the tools, their creativity takes over and they're able to produce something that's meaningful. Have expectations, have standards, have a rubric, and assess their computer skills just as you'd assess any other area of study. Always let whomever you're teaching have the mouse in their hand."

On learning technology:
"I strongly recommend that teachers get involved with educational listservs, such as the Global SchoolNet Foundation's HILITES (http://www.gsn.org/teach/list/hilites.html) which focuses on classroom projects. It will really help teachers to integrate technology into their curriculum. Some of my other favorite educational Web sites are:

- Global SchoolNet Foundation's K12OPPS (http://www.gsn.org)
- Dr. Data (http://www.un.org/Pubs/CyberSchoolBus/menuquiz.htm)
- AskEric (http://ericir.syr.edu/)
- Kathy Schrock (http://www.capecod.net/schrockguide/)

Funky BUTTONS

By LEE SHERMAN

PHOTO BY ROBERT MERRIMAN

HELENA, Montana— "How'd you get that?" one boy says, an edge of frustration in his voice.

"Push the funky button at the top," another student calls out from the next aisle.

Across the room, a third student crows triumphantly: "I got it! I got all three!"

"You suck," mutters the boy behind him as he continues to punch buttons on his hand-held calculator, the Texas Instruments TI-83.

At the front of the room, teacher Wendy Driscoll guides the Helena High School freshmen through a problem that blends concepts from physics, biology, algebra, and pattern analysis. As she enters numbers and functions on her pocketbook-sized TI-83, her work appears bigger than life on an overhead screen.

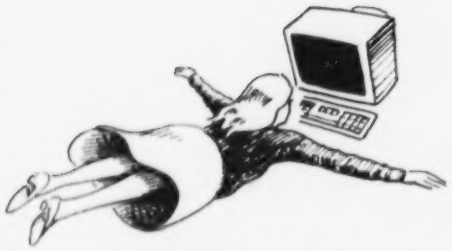
Students began exploring the problem a day earlier in the science lab, where they burned cereal to estimate the amount of energy (kilocalories) locked inside the grain. Now they're tackling the math, some hunched intently over their calculators, others slouched casually in their chairs, all fully engaged at 7:45 on this chilly Montana morning. They're computing the amount of time it takes a person weighing 60 kilograms to burn 100, 200, 300, 400, and 500 kilocalories when doing each of three different activities—one requiring a high amount of energy (playing basketball), one requiring a moderate amount of energy (lifting weights), and one requiring a low amount of energy (watching TV). Then, using their TI-83s, the students are entering the results to create a "scatterplot" graph showing the relative slope of each activity. The calculator/computers can generate a graph instantly with a few taps of the finger. The old way—plotting points on a piece of graph paper—is by comparison slow and laborious.

"For this particular lesson," says Driscoll, "we couldn't have covered that much territory if we were doing it by hand—plotting all those points and doing three different sets of equations. There's no way. The TI-83 allows us to investigate a lot more equations—and a lot more sophisticated equations—than we can with pencil and paper. My seniors are doing some really sophisticated polynomials that they probably wouldn't be doing without this technology."

The problem that engrosses the freshmen is from a module called "Yesterday's Food Is Walking and Talking Today"—part of a technology-intense mathematics curriculum developed and field-tested by teachers in Montana. A five-year project launched in 1990 and funded by the National Science Foundation, SIMMS (the Systemic Initiative for Montana Mathematics and Science) had several major goals:

- Incorporate technology into all facets and at all levels of the math curriculum
- Integrate high school mathematics with other disciplines, including science, social studies, and language arts
- Design a curriculum that reaches all students, both college-preparatory and non-college bound
- Draw more females and American Indians into math and science

The SIMMS *Integrated Mathematics* curriculum (published by Simon and Schuster) from which the Helena students are working presents math problems in real-world contexts. Instead of just "solving for X," Driscoll says, kids get a chance to predict, explore, interpret, evaluate. They get a chance to think like geologists, sociologists, engineers, architects. Working in pairs or in teams, they use real data to solve problems



encountered in the home, the workplace, the community, and the environment.

"What you don't hear in a SIMMS classroom is, 'Where are we gonna use this stuff?'" reports Driscoll, who worked as a computer program analyst for oil and gas with the Montana Department of Natural Resources and Conservation before returning to the classroom several years ago. Now chair of the Helena High math department, Driscoll spent four summers in Bozeman writing modules for the SIMMS curriculum. The Level I (freshman) module in which Driscoll's students are working presents these kinds of problems:

■ During a unit on volume, Driscoll's students will use data from the infamous Exxon Valdez oil spill of 1989 to calculate, among other things, the volume and surface area of the spill. Students are encouraged to search the Internet to find data on other disastrous spills.

■ After creating a kaleidoscope with hinged mirrors, students explore mathematical properties of a variety of polygons (triangles, quadrilaterals, pentagons, etcetera). Students then use their understanding to explore such real-world problems as laying pipe for an oil pipeline, building a trail, and predicting the path of radio waves and laser beams.

■ A unit titled "So You Want to Buy a Car" looks at a number of variables in car design, including the relationship between highway fuel economy and weight. In one problem, students create scatterplots of data from various car models, then use the graphs to estimate how far each car can travel in a given number of seconds.

Electronics play a role in virtually all the SIMMS modules. "The technology serves as an investigating tool," says Driscoll.

Throughout the six levels of the curriculum, students use the graphing calculator, which has built-in software and can be networked so students can share data. Higher-level students also use another Texas Instruments device, the Calculator-Based Laboratory (CBL), which uses a probe or sensor to collect scientific data (temperature, motion, heart rate, pH, light, sound, and so on) in the classroom. One unit for juniors involves calculating the rate of change in the motion of a soccer ball rolling down a ramp. The CBL picks up the ball's motion. The data flows into the graphing calculator, to which the CBL is linked, to produce an instant graph.

Personal computers are used, too, for spreadsheets, geometry construction, statistics, symbol manipulation, and word processing. But the hand-held graphing calculators have one obvious advantage over PCs: Each student can have his or her own piece of equipment.

"On computers, it's four students to one piece of equipment," says Dave Campbell, a Helena math teacher who works closely with Driscoll in delivering the SIMMS curriculum. And, he notes, the hand-held calculators can be linked to the school's computer network to produce printouts of graphs and other data.

The best thing about SIMMS, Campbell and Driscoll report, is that through open-ended exploration of math concepts, students can attack problems with greater depth—and with more daring. "The teacher plays much less of a role in SIMMS than in a traditional math class, especially at the higher levels," says Driscoll. "There are a lot of independent learners in SIMMS. And they're really good risk-takers. But weaning them away from being spoon-fed is not easy."

TEACHER'S FOOTNOTES

On integrated math:

"It seems to work well with some kids who have never been successful before. At the same time, there are some very bright students in the class who prefer it because it's more meaningful to see (math concepts) in context. But it has its detractors. There are some people who feel that it isn't really math because it isn't what they had when they were growing up. They want more drill and kill."

On costs:

"The graphing calculators cost $88. Most kids buy their own. For students who can't afford them, the principal has a fund that will pay for half. Once in a while at an open house, a parent will say something about the cost—that it's an outrageous expense. We point out that a pair of basketball shoes costs $110 and only lasts for a season. Students will use the same calculator all through high school and on into college."

Charlyne's Web

BY TONY KNEIDEK

MACKAY, Idaho—
A gaggle of fifth-graders races into Charlyne Kaulukukui's classroom. Through another door, a batch of kindergartners hustles to the six computers stationed at the room's far end, where the younger and older students pair up. As the little kids tell stories based on pictures they had drawn earlier, the big kids record the tales on the computers. Calling upon their more advanced writing skills, the older mentors add shape and structure to the kindergartners' storytelling.

Kaulukukui—or Ms. K as she is known in this town of 500—floats among the pairs of students, listening in, offering guidance, and providing support. At one computer, Erin keyboards her sister Katie's story, coaxing more information from her and supplying punctuation as the tale about a snowy Valentine's Day unwinds. Katie steps to the keyboard to sign her name to her creation before printing it. Then she reads her story aloud with Erin's help. The story is stored on a disk along with other projects that together form an electronic portfolio that will follow Katie through her years at Mackay Elementary School.

Ms. K is pioneering new ways for her 15 fifth-graders to learn and grow through the use of computers and other technologies in the classroom. Cross-grade tutoring, online research, and international e-mail are some of the ways Ms. K employs technology as an instructional tool—a tool she weaves throughout her language arts, science, geography, and reading curricula. "At the elementary level, we teach 10 to 12 curricula a week," she says. "I hear teachers ask, 'How can we add more?' How? You integrate it. When I teach social studies, I bring in history, literature, writing, and now, technology. It becomes a web with social studies at the center."

Projects range from economics to English. For example:

■ This year, Ms. K has developed an economics project in which her students "play" the stock market, watching their investments rise and fall, moving money around, and determining when to buy and sell. Students access a daily financial report—both the morning call and the closing bell—through Infobeat (http://www.infobeat.com/).

■ A Malaysian e-mail friend of Ms. K corresponds with the students and tells them about the economy in Asia and its influences on the world market. "Children need to be aware of cultural diversity," says Ms. K, who is a native of Honolulu. "They need to see and understand other people, the places they live, their countries, and to have an appreciation for other cultures."

■ Four young women in Denmark are learning how to write proper English with the help of Ms. K's fifth-graders. One Danish girl recently wrote in part: "Hallo Ms. K!! My name is Anette. I'm 14 years old. I have birthday September the 30th. I have three jobs . . . My mother is a hause wife she is 32 years old . . . and her name is Anni, and my father work in our capital (Copenhagen) he is 36 years old and he name is Jens." The Idaho fifth-graders edit the letters, rewrite portions of them, and send them back. The letters are projected on a TV monitor, and the students review them together, noting grammatical errors, problems with punctuation, and mistakes in verb tense. Ms. K linked up with the Danish students through their teacher, whom she met in an Internet "chat room" where people from around the world converse online. (The address for the "Net meeting" where the two women connected is http://www.microsoft.com/netmeeting/.)

"The wonderful thing about technology is that it brings the world to our classroom," says Ms. K. "My goal is to prepare my children for the world—to let them know that they can have an education, see the world, and always come back home again."

Besides corresponding with the Danish youths, Ms. K's students have e-mail relationships with students in Italy, France, and China.

"I'm learning a lot about other people and what's going on in the world," says fifth-grader Ellen. "You can see things, hear things, talk to people, and get places. And I can do it all by myself."

In another classroom, sixth-graders Jessica and Amanda huddle over their computer. After clicking on Yahoo! (a popular tool for searching the World Wide Web), they type in the word "armadillo," and wait a few seconds until a list pops up offering a wealth of Web sites. "Most of these sites are businesses with the armadillo name in it," Jessica observes. "But we've still gotten a lot of information for our project."

Today, the girls are looking for pictures of armadillos, so they return to Yahoo! and narrow their search, typing in "armadillo picture." A site pops up with lots of scanned photos of the armor-clad creatures common in the Southwest. Jessica and Amanda click and copy the photos, then import them to Microsoft PowerPoint, a program for planning multimedia presentations, useful to everyone

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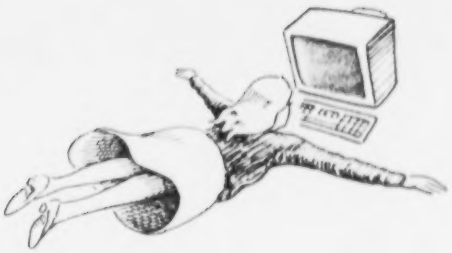

from corporate CEOs to sixth-grade students.

In PowerPoint, Amanda and Jessica have combined text and photos for a report they will present to their classmates. The presentation software will be wired to a 21-inch TV monitor that allows the girls to project visual images while they give their oral report.

Sixth-grade teacher Cindy Kimball says technology addresses the working and learning styles of more students, and keeps students engaged in their learning. "We require that all our sixth-graders do a PowerPoint presentation," she says. "This is an exciting way for them to transfer their knowledge, and they're using a variety of communication skills. These reports are a way for them to reach everyone in the classroom."

When a new project is introduced, Kimball works with five or six students, helping them to locate appropriate Internet sites, developing a list of key access words, and guiding them through the maze of Web sites. Those six students then share the information with others, acting as coaches in the early stages of project development.

Students, Kimball cautions, must be monitored when they're on the information highway. Navigating the Internet can lead to sites with sexually explicit photos, language, or other inappropriate material. "I don't let them do anything on the Internet without me there," she says. "There are a lot of sites that are not appropriate. We have to be real careful—go step-by-step and preview where we want the kids to go."

This year, fifth- and sixth-grade teachers are participating in the Idaho State University Mentor Program for teachers. (Second- and third-grade teachers began the two-year program last year). The program, paid for through a grant from the university, provides methods of curriculum integration for word processing, spreadsheets, electronic presentations, and Internet use. Participants then train colleagues in their school and model technology integration. As a result, teacher collaboration has increased along with the implementation of technology-based teaching.

Still, Ms. K says, computers have limitations in the education of children.

"I like computers," she says. "I find them exciting, but they cannot replace teachers and books. They cannot say to a student, 'It's OK, you're having a bad day.' They cannot put a Band-Aid on a child's scraped knee. They cannot touch human lives in truly human ways."

TEACHER'S FOOTNOTES

On sites and software:

Ms. K has several sites bookmarked for her students' convenience, and also has her favorites written on the board just above the computers. They include:

■ Security Industry Association sponsors the SMG 2000 stock market game, a 10-week simulation of Wall Street trading that provides a framework for teaching students in grades four through 12 about the American economic system. It is designed for classroom use to increase understanding of the stock market, the costs and benefits involved in economic decision-making, the sources and uses of capital, and other related economic concepts. Angela Garcia is the Stock Market Game Coordinator for the Idaho Council on Economic Education (agarcia@cobfac.idbsu.edu).

■ Yahooligans (www.yahooligans.com) is a kid-friendly site with snappy graphics and a main menu that includes links such as Around the World (countries, politics, history); Art Soup (museums, dramas, dance); Computers and Games (shareware, software); School Bell (clubs, homework help); Science and Oddities (space, animals, robots); Sports and Recreation (scores, hobbies, trivia); Entertainment (TV, movies, music); and The Scoop (comics, newspapers, current events).

■ USA Today (http://www.usatoday.com) is the daily newspaper online.

■ National Geographic (http://www.nationalgeographic.com/contents/) includes articles and photos appearing in the highly respected magazine that looks at global issues and cultures from around the world.

On overcoming fear: "I started with an old Apple computer and stayed there even after we began shifting to faster, more powerful computers. I had become comfortable and reluctant to change. I was secure. Now my security is in adventure—in exploring and looking for new sites and new applications. This has opened up my thinking and my world, too."

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CONQUERING THE COMPUTER

A PRIMER FOR THE RELUCTANT, THE FEARFUL, AND THE BEFUDDLED

BY MELISSA STEINEGER

A lot of teachers know they should be using the computer more in their classrooms, but they don't know where to start. Or they're uncertain about how to blend technology into their lesson plans. Some have made a stab, but have given up when technical glitches or mixed results have stanched their enthusiasm. Others are afraid. For teachers who earned their degrees before computers became commonplace, the technology can still seem foreign and forbidding.

If you fall into one of these categories, this basic introduction may provide some guidance. It gives guidelines for selecting educational software. For the novice Internet user, it offers straightforward, jargon-free explanations of such technological mysteries as search engines and listservs. And it reveals the recommendations of Northwest educators, who have shared their favorite online resources and educational applications.

To start, remember two simple rules:

Rule One: Be patient; allow for a learning curve. Taming the computer can seem overwhelming when viewed as a whole, but by breaking

123

the subject into small pieces, persevering, and being patient, you will succeed. An insight to keep in mind: Even experienced computer users get frustrated; the difference is they know frustration is just par for the course.

Rule Two: Begin using the technology in nonthreatening arenas. Start by writing parent letters on the computer. Do lesson plans. Keep grades. As your skills increase, you can begin bringing this tool into the classroom. Don't be surprised if some students exceed your proficiency. Draw upon their expertise. Call on them as in-class experts. Ask them to serve as coaches to kids who may need extra help. Remember, they still need your guidance to understand and use the content.

If your computer is barely out of the box, start slowly. Seek guidance from a colleague, a class, or a consultant. The key is to plunge in. In all likelihood, even the most techno-reticent will come to love the computer for the educational doors it can open. Remember, there's no single right way to begin or one best way to use a computer in a classroom. But that first step must be taken.

SELECTING SOFTWARE

One of the first problems facing the computer-using teacher is choosing appropriate classroom software. Educational software (and software that calls itself educational) is everywhere. More than 2,000 titles are released annually. Much of this software is useful; some of it is awful. And none of it replaces the teacher. One study found that unsupervised students began using a software program on the Oregon Trail as if it were a computer game—ignoring problem-solving opportunities in a race to see who could end the simulation first. In other studies, students used trial-and-error strategies instead of calculations to solve math problems. In yet another study, students ran software for the sound effects instead of focusing on the content.

In other words, kids will be kids. They need guidance to stay on an educational path.

There are many types of software. Some software develops rote memory or mechanical responses—skills required for arithmetic or sight word recognition. In these "drill and skill" programs, higher-order thinking skills are seldom required.

Software that supports discovery-based teaching methods encourages active intellectual involvement. With this type of program, what occurs on the screen often is determined by the user rather than the software developer. The interaction between learner and computer usually allows many acceptable responses. In other words, growth is open-ended.

To pick through the maze of software, it is helpful to work through a selection process similar to that used for choosing any resource to be added to the curriculum. Start by revisiting curriculum goals and standards. Hunt for software that will help students meet those goals and standards.

Set some basic guidelines for the software: its user friendliness, the level of student interaction, and the fit with curriculum requirements. Ask questions such as:

- Does the software involve problem solving or interaction between the students in a cooperative/collaborative mode of learning?
- Are leading characters diverse across sexes and races?
- Does the software perpetuate stereotypes or prejudices?
- Are the educational goals precisely defined by the software developers?
- Does the software vendor provide any instruction about how the software can be used in class and at home so that the best results can be expected?
- Does the software encourage reaching these goals by penalizing various misuses or providing guidance toward reaching the goals?
- Does the software discourage trial-and-error type behavior while favoring decisions resulting from analytical thinking?
- Are the special effects overwhelming the objectives of the software?
- Will the program fit the curriculum or will the curriculum have to be adapted to fit the program? (Some software has its own scope and sequence, and the teacher must adapt the classroom curriculum to match the computer curriculum.)
- Is the program theme-based or skills-based?

With a basic idea of what qualities you need from the software, do a broad survey to identify promising programs. Look through catalogs such as Sunburst or Learning Services for basic descriptions. Check reviews in educational technology magazines such as *Electronic Learning* and *Learning and Leading with Technology*. Read the reviews published in professional journals.

The Internet offers a lot of options (see the next section for guidance on using the Internet). Visit Web sites that provide links to sources of reviews, such as the Northwest Educational Technology Consortium's "Software Evaluation" page (http://www.netc.org/software/other.html) or the Children's Software Revue (http://www2.childrenssoftware.com/childrenssoftware/). Amy Derby, resource librarian for the consortium, operated by the Northwest Regional Educational Laboratory, recommends another "excellent" resource: the Educational Software Selector (http://www.epie.org/), a database containing descriptions

34 **Chuck Wahle,** technical coordinator at Washington's Ellensburg School District, teaches "the wonders of interactive multimedia production, 3-D graphic rendering, and animation" to sixth-, seventh-, and eighth-graders at Morgan Middle School. You can see some examples of his efforts at http://www.esd105.wednet.edu/Ellensburg/eburg_15.html.

Says Wahle: "Don't bring in technology in the hope that it will make a curriculum come alive for students. If the curriculum is not alive for them in the first place, adding technology to the mix will simply mask the problems for a short time. Use technology to augment a good curriculum and to bring in new, otherwise-impossible experiences."

One of Wahle's top technology picks: Virtual Globe software by Microsoft. Virtual Globe is an "amazing" CD-ROM atlas, says Wahle. "I have yet to find a place in the world that has not shown up in the Globe. Beyond normal atlas areas, it has cultural information in videos and sound. Graphing can be done interactively. The planet can be displayed in several modes from geographical to satellite views during night and day. The database behind it is one of the largest authoritative collections I have ever seen."

One caveat: Virtual Globe only runs on computers with Windows 95 software. Wahle notes that teachers can preview some of Virtual Globe's capabilities at http://encarta.msn.com/evg98/evghome.asp.

and impartial reviews of thousands of currently published educational software programs. Still another option is to post queries on newsgroups or mailing lists (see the discussion on "Online Forums" below).

There is no substitute for experience. Try to interview someone who's using the software you're considering (for starters, send an e-mail query to staff members in your school or district). If you find someone who's using it, visit his classroom and observe the software in action. Ask what he likes and dislikes about the program. In addition, many school districts, universities, and education service districts have software libraries and trained staff to help with the selection of appropriate software.

Even better, observe students as they interact with the program. That will be your best indication of whether the program serves your instructional objectives. Some software publishers allow you a free preview of an entire program. Others will provide a demo disk. Still others require you to buy the software, but will allow you to return it within a specified time limit. Or you may be able to borrow a program from another teacher to review.

Try to preview all programs that appear to meet your selection criteria before you commit to them. As a general rule, if there's no way to preview the software with your own students, it's best to avoid that software.

A few technical considerations: Make sure the software being considered will operate on your hardware system. If your computer is networked with others in the school, make sure the software will operate on networked systems. Some additional, technical things to ask when considering new software: Is the program upgraded yearly? Are free upgrades given? How much training comes with the program? What kind of support from the manufacturer is available? Is there a telephone hotline number for help?

Once you've answered all these questions and found a great software program, post it for your mailing list or newsgroup so others can benefit from your experience.

THE INTERNET

The Internet can provide access to a wealth of information for both teachers and students. Without leaving the classroom, you can retrieve information on almost any topic. You can work with colleagues and subject specialists. You can explore ideas.

First, a bit of history. The Internet—now frequently abbreviated to the "Net"—started in the 1960s as a project between the U.S. Department of Defense and several universities conducting military research. The project aimed at developing a system of communication that could resist "interruptions caused by enemy attacks." The four California and Utah universities demonstrated the re ability of "packet-switched" networks. Instead of communicatir directly and sequentially from point A to point B like telephone these computers broke the information into small packets and sent them along a spider's web of telephone lines. If line 1 was t busy for any reason, the compute would automatically switch the next packet of information to lin 2 or 3 or 4, and so on. The receiving computer then reassembled the various packets in the proper order, making a complete and coherent message. So the Internet —or interconnected network— was born.

The Net today offers several basic communication and information avenues:

- Electronic mail (e-mail) offers the chance to send a note to anyone anywhere in the world in an instant. It's much faster than "snail mail"—mail sent through the post office or express delivery services.
- Forums of various types (mailing lists, newsgroups) allow people to communicate with like-minded folk on specific topics, such as school projects, curriculum, or teaching strategies.
- The World Wide Web—usually shortened to the "Web"—is a subset of the Net. The Web allows online information to be enlivened by sound, graphics, even animation. Resources on the Web are typically linked to other resources, which in turn are linked to still more resources. Many classroom

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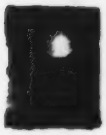

activities are likely to be on the Web. Web sites are filled with everything from bonafide research documents to personal ramblings.

The Internet—which provides access to a vast repository of information and near-infinite linkages between people and places worldwide—offers a storehouse of riches for students and teachers. Nick Cabot, a science teacher at Nathan Hale High School in Seattle, sums it up this way: "The power of computer technology in general and the Web in particular is at least four-part. First is interactivity. Variables can be manipulated and the results viewed immediately. Second is access to real-time data. All kinds of remote sensing data such as weather, astronomy, earthquakes, and ocean temperatures, to name a few, are available to anyone with a Web connection. Third is worldwide e-mail contact with scientists, engineers, other classrooms, and science Web sites. Finally, the Web is a powerful research tool providing quick access to original and archived research in all disciplines and from all over the world."

The boon—and boondoggle—of the Web is that it is massive and unregulated chaos. Anyone can put anything on it. There are no rules, there are no universal structures, and protocols (defined in *NetLearning* as "a definition of how computers will act when talking to each other") are only beginning to emerge. It's kind of like a worldwide come-as-you-are party, where everyone's invited. Some guests bring information or opinions to share with other guests, who mingle, browse, and listen. Instead of talking, though, each "speaker" displays his stuff on a Web site, whether it be scientific data, literary masterpieces, car-repair tips, or recent alien sightings.

Currently there are millions of Web sites, and more are added every day. Fortunately, there are tools to help you cut through the chatter. Using one of these tools is the most efficient way of pinpointing information in the chaos of the Web. You have your choice of tools, including Web directories, search engines, meta-search engines, Web casting services, and Web channels.

Let's look at two basic types: directories and search engines.

Directories are organized like the Yellow Pages. Information is divided into broad categories, such as "education," "arts," and "business and economy." Directory staff review Web sites and assign them to categories. You generally look things up by finding a category you want and then browsing to see if it contains anything pertinent to your topic. Yahoo! (http://www.yahoo.com) is one of the most popular directories.

A search engine creates a Web index like the one at the back of a book. You search for a word or topic, say, **kindergarten**. The engine scans its index to find matches for your search query. One popular search engine, Alta Vista (http://www.altavista.digital.com), scans through a whopping 30 million Web sites. Be aware that search engines are in constant flux. The specific sites searched by a search engine may change every few days. You can undertake a search one week and get different results for the identical search the next week.

Directories differ from search engines in coverage of Web sites. Search engines have the broadest coverage because they have immense indexes of words used in Web sites. Directories are more narrow because they contain only Web sites selected for their particular categories. Each has advantages and disadvantages. With directories, you needn't narrow down your topic right away, but instead can browse under a broad category. Just turn to the "education" category and look for **programs**. If the directory is searchable, create a query for **educational programs** and the directory will match your query to the appropriate categories.

The index of a search engine contains many more entries, but you have to be more selective about what you ask it to search for. Search engines are literal. If, for instance, you want to find educational programs and type **program** into the search box, the search tool will find not only educational programs but also computer programs, theater programs, and anything else that contains the word **program**.

Even typing **educational programs** might not help,

Nick Cabot, a science teacher at Nathan Hale High School in the Seattle School District, says: "For me, the technology must be able to do something I can't. I'm not interested in an electronic textbook." Cabot and his students will become scientists on a NASA lunar mission that launched in January—an opportunity he learned about on the Web.

Cabot's recommendations include:

- NASA listservs, which he finds timely and informative. Check out the NASA Web site (http://kita.rw.nasa.gov) for listservs and for much more information.
- The Hale High School's Web site (http://hale.ssd.k12.wa.us).
- A great page for science teachers at http://www.sdsc.edu/Education/K-12_Resources.
- The Athena Web site (http://athena.wednet.edu), which Cabot says is a great science site with lots of prepared curricula and project ideas. "Athena takes advantage of the capability of the medium better than any other site I know," he says.
- Some physics education software he recommends includes Graphs & Tracks, Vernier Software, Interactive Physics, Cartoon Guide to Physics, and World-in-Motion (video capture and analysis software).
- For software relating to Mars, he recommends Mars Explorer, Mars Navigator, and Marsbook.
- Good software on meteorology includes Weather Disaster, Weather Workstation, and Everything Weather.

A bit of wisdom this experienced Web user passes along: "It takes lots of trial and error, word of mouth, and hours on the computer surfing (exploring) and checking things out."

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36 **Barbara Ridgway,** technology manager for Montana's Helena School District, says teachers make extensive use of the Internet "because they see quality applications that support their instruction and curriculum." Students in one class collect daily weather data and then chart and analyze weather information from around the world. Another teacher took her students on a virtual tour of the Bronx Zoo while reading a story about the zoo in a language-arts text. High school French students found native speakers for e-mail exchanges. And a science class makes virtual visits to NASA during a unit on astronomy.

Ridgway recommends the following sites to help teachers learn on their own to use the Net and computers in their classrooms:

- Mining the Internet (http://irs.ed.uiuc.edu/Mining/Overview.html) and the Thornburg Center (http://www.tcpd.org/).

Ridgway recommends finding curriculum materials online at the following sites:

- Internet Public Library (http://ipl.sils.umich.edu/); the Jason Project (http://www.jason.org/front.html) and Jerome & Deborah's Big Page of Internet Projects & Educational Technology (http://www.mts.net/~jgreenco/internet.html).
- She turns to CD-ROMs for School Libraries (http://www.libertynet.org/~lion/cd-rom.html) for help picking good educational software.
- For professional interaction online, Ridgway recommends the Teacher Contact Database (http://www.classroomconnect.com/classroom/teachcontact/).

because while the index would retrieve Web sites with those two words, they would not necessarily appear in conjunction with each other. However, every index has a way to specify multiple-word combinations. It might tell you to enclose the words in quotation marks, like this: **"educational programs."** Or it might tell you to click on a choice such as "search as a phrase."

But remember, there are no rules on the Web. Each index is different. To discover the specific way a particular index works, look at the search instructions. Alta Vista includes its instructions under the heading "help," located beneath the box in which you enter your topic to be searched. Click on the word "help," and instructions will appear.

As search tools are improved, the distinctions between directories and indexes are fading. Yahoo! now even routinely scans Alta Vista to find a search term, and Alta Vista has categories to help focus your search.

One bit of advice: Because of the enormity of the Web, no search tool will scan every Web site for your topic. To uncover more information, it's best to use different types of tools and more than one tool of each type whenever you search.

An example at this point might help. Say you want to find information about the Holocaust. After starting your "Web browser" software (the software that gives you access to the Web; Netscape Navigator and Microsoft Internet Explorer are the two biggies), go to the address box (usually near the top of the screen; it may be blank or already have an address entered, usually starting with http://www). Erase what's there and type in http://www.yahoo.com. When the Yahoo! site appears, type **Holocaust** in the search box and click the search button.

Yahoo! will reveal the categories where the word Holocaust appears—"arts," "society and culture," and "business and economy." Yahoo! also displays the Web sites where it found Holocaust (remember, this will change periodically, as Yahoo updates its information every few days or so). During a recent search, Yahoo found 160 Web sites with the word Holocaust. The first listing was for a site dedicated to the 400th anniversary of the Kirishtan Holocaust (the killing of nearly 1 million Japanese Christians over a 250-year period beginning in the late 16th century). The next listing was for classes on the Holocaust taught at colleges around the nation. The third listing was the United States Holocaust Memorial Museum. Clicking on that listing took the viewer to the museum's site, which offers photo archives, history, and more.

A search by Alta Vista (http://www.altavista.digital.com) turned up more than 29,000 Web sites with "Holocaust," rank-ordered based on the site's first 100 words and other criteria. Among the sites it found were the Holocaust Awareness Project (a site created by an 11-year-old New Jersey boy) and an eyewitness account of Holocaust survivors arriving in Sweden in 1945.

As you learn to explore the Net, it may help to experiment with search tools to find information of personal interest. Search for information on your hobbies. Visit virtual vacation spots. One advantage of this type of cruising is that as you explore, many examples of intriguing school projects or educational uses will crop up. And remember that dead ends, glitches, and pure frustration happen to everyone all the time. If they're not happening, try harder!

One note: Net users frequently get error messages that say the desired site can't be found. There are several reasons for this. There may be a typo. Check the spelling in the address box; a common mistake is to type the letter "o" for the number zero or vice versa. The site may be busy, meaning it's there, but has no room for more visitors; try again later. Or the site may have moved. Sometimes sites will leave a forwarding address.

ONLINE TRAINING

OK, so your cyber-journey has been launched. You're spending time exploring the Net. Now, where to get advanced training and answers to the questions piling up in your mind? There are many avenues

for learning to use the Internet. You can take classes, sign up for an inservice training, go to the public library, find a knowledgeable colleague, or search the Internet for training opportunities.

Computer stores and community colleges are good places to find classes and support groups. Don't be intimidated about being a beginner—there's nothing a computer aficionado likes better than delivering information, often more than you can absorb all at once. Be prepared to gently slow her down once she launches into informational orbit.

Also, at the first few meetings, you may feel as if you've landed in a country where you don't speak the language. Computer lingo is wondrously strange and is tossed off by aficionados with abandon. (Check out these esoteric terms: multi-user dungeon, hypertext transfer protocol, Ethernet, graphical interchange format.) But in a shorter time than you would imagine, you will notice the vocabulary slipping into your own conversations.

The Net can provide information about using itself and other technology. But be warned: "Going online can be a difficult way to learn if you're not comfortable with the technology," says Amy Derby of the Laboratory's Technology Center. If you decide to look for online training or support, one easy way to begin is to find a Web site dedicated to educators and begin reading. Many sites have how-to articles, real-life success stories, and other useful content. Often, sites and articles will have links to other sites and other articles. When a word or phrase is underlined or appears in a color different from that of the rest of the text, double click on that word and a related article or Web site will appear. To get back to the previous site, look for the back arrow on the toolbar (the row of symbols) at the top of your computer screen.

Kathy Schrock's Guide for Educators (http://www.capecod.net/schrockguide/) is one site recommended by many educators as a good introduction to all that's available on the Net. Schrock offers a list of sites useful for enhancing curriculum and teachers' professional growth. It's updated daily to keep up with the ballooning number of new Web sites.

At Montana's Helena School District, teachers have found classes and training resources through sites such as Microsoft Training Choices (http://www.microsoft.com/train_cert/train/) and Electronic Learning Just for Educators—Your Own Web Site (http://place.scholastic.com/EL/guide/index.htm). You can also find links, directories, and search engines, as well as basic strategies and tips for using the Internet on the Northwest Educational Technology Consortium's Web site (http://www.netc.org/presentations/basics.html).

ONLINE FORUMS

Another good way to learn online is to use the Internet to talk to other educators. Sharing information, success stories, and the inevitable horror stories can help combat the seclusion of teachers trapped in a "cells and bells" environment or the professional isolation of educators in remote areas.

In addition to e-mail, there are three basic types of person-to-person communication on the Net: mailing lists (also called listservs), newsgroups (also called usenet groups), and chat rooms.

A mailing list uses e-mail as a way for a group of people to communicate on a topic of interest to them all. Educators might join a mailing list dedicated to K-12 funding, middle school science curriculum, preschool development, or just about any topic imaginable. Mailing lists are sort of like a running conversation. Someone "pens" a few thoughts and sends them to the mailing list's e-mail address. The list in turn sends the message to the e-mail addresses of everyone who has subscribed to the list. Someone else responds to the comments, using the same process, and the conversation is up and running.

There is little uniform procedure for any of this, so mailing lists each operate somewhat differently. Some are informal and fly off into outer space, topicwise.

Jane Krauss uses the internet creatively with her fourth- and fifth-graders at Harris Elementary School in Oregon's Eugene School District. For example, Krauss developed a Web site for her students to use during a unit on salmon (http://www.4j.lane.edu/WebSites/Harris/Salmon/salmon%20project). "It pretty much stands alone," she says, "and a lot of other teachers in the district have used it."

Krauss is putting together her own Web site (http://www.4j.lane.edu/Personal/K/Krauss/Krauss.html), where she lists her favorite mailing lists and sites. Among Krauss' recommendations are:

- A listserv called Network Nuggets (to subscribe, send an e-mail to http://www.etc.bc.ca/lists/nuggets/home.html) for its daily review of a new educational Web site
- Web 66 (http://web66.coled.umn.edu/) as an introduction to the Web for newcomers
- Two software programs, Dinopark Tycoon and Oregon Trail, seem to "endlessly captivate" her students, she says.
- Krauss uses curriculum available at the Best in Kids Lit site (http://www.acs.ucalgary.ca/~dkbrown/index.html).
- She also taps into AskEric, an enormous resource site at http://ericir.syr.edu/.
- Classroom Connect (http://www.classroom.net/classroom/edulinks.html) is another Web site she visits frequently.

Janet Thomson, a consultant who was a teacher and administrator for 26 years in Montana's Great Falls School District, says: "The biggest danger I see in teachers using the Net is that searching can be so time-consuming that the teacher gives up and goes back to the way he or she has always done things. This sends a big message to kids."

Some Web sites she recommends to help teachers reduce the time they spend searching for education-related topics include:

- American Educational Research Association (http://aera.net/sigs/), which has more than 30 years of education research indexed.
- The Eric digest site (http://www.ed.gov/databases/ERIC_Digests/index/)
- Mamma (http://www.mamma.com), a site that bills itself as the "mother" of all search tools.

Thomson has compiled more than 2,000 annotated Web sites that help classroom teachers find activities, lesson plans, and listservs into *Net Returns*, one of three self-published Internet guides available for $55 each from Thomson Consultation Services, 2724 Del Mar, Great Falls, Montana 59404, (406) 453-6242, <jant@imtco.net>.

Others are relatively formal. Once you become a member, try reading the incoming e-mail for a week or so before actually sending in a comment. That way, you'll have a better feel for the tone and inflections of that particular group of people.

Mailing lists have two e-mail addresses: the address to which you send comments and the address to which you send a request to be added to the mailing list. Mailing lists can be maintained by actual humans or by automatic software programs. For mailing lists maintained by humans, the add/drop address is usually the same address for comments, plus the word "request" added just before the "@" symbol. Hypothetically, this would be: request@teachers.org. To join a mailing list, simply find one of interest (see suggestions in the margins) and send an e-mail to the manager asking to be put on the list. If the mailing list is run by a person, it may take some time for a response.

If the mailing list is maintained automatically, subscribing is different, but equally easy. Most automatic mailing lists are maintained by software called LISTSERV or software called Majordomo. Clear and concise directions for participating in the list and for removing yourself from the list will be sent to you when you join the list. Says Derby: "Usually, the information that describes the list and excites your interest tells how to subscribe. This information may be found in a magazine, sent by a friend, or available online at a Web site."

Many mailing lists are monitored by a moderator, who screens comments to ensure that they are relevant or fit whatever criteria the mailing list may have. While this sounds like censorship—and it may be—it also cuts down on the number of off-track comments sent out to multitudes.

For professional interaction online, Barbara Ridgway, district technology manager for Montana's Helena School District, recommends the Teacher Contact Database (http://www.classroomconnect.com/classroom/teachcontact/) as well as a number of other listservs teachers subscribe to, including Wired Montana (wired-mt@wln.com), a listserv for all Montana libraries and those interested in libraries; Ed Info (edinfo@inet.ed.gov), an educational listserv from the U.S. Department of Education (http://www.ed.gov); LM_Net (LM_NET@listserv.syr.edu), a listserv for librarians; and Scout Report (http://wwwscout.cs.wisc.edu/scout/report), a weekly guide to the Internet.

Newsgroups, another type of online forum organized by subject area, are like bulletin boards. People post and read messages at the newsgroup site, rather than having all messages sent to their personal mailbox. Many companies that provide Internet access such as America Online (AOL) and Compuserve offer newsgroups.

Chat rooms allow for real-time communication between users. When you join a chat room, you post messages by typing on the keyboard and the message will appear on other users' monitors. Chat rooms usually have a topical focus, such as sports or support groups. Most online services offer access to chat rooms.

FINDING CURRICULUM

Now that you have the basics, it's time to start using your Net-pertise in the classroom. But where to start? The obvious answer—on the Net. The Net abounds with curriculum materials, lesson plans, and expertise from other teachers eager to share information. But how to find them?

There are two easy ways. One is to start at a Web site known to be education-related. (See the lists in the margins for some sites recommended by educators around the region.) Such a site will provide articles of interest on many topics that educators care about, often including curriculum, lesson plans, and online forums.

NWREL's Library in the Sky (http://www.nwrel.org/sky/), designed for K-12 teachers, parents, and students is one often-recommended starting point. It provides links to educational resources, projects, discussions, collaborations, lessons, curricula, and standards. Another excellent

resource is a magazine called Classroom Connect—a practical guide to using the Internet in the classroom. "It is one of the best sources of information about Web sites," says Derby. "Each issue highlights sites in subject areas such as art, language arts, science, social studies, math, and so on." Visit the magazine's Web site (http://www.classroom.net) for more details and subscription information.

As you search and browse, dozens of curriculum ideas begin turning up. Now how do you go about incorporating this technology in a thoughtful way? Mainly, by letting the curriculum drive how you use technology in your classroom. Rather than adding interesting projects piecemeal to your repertoire, review your curriculum goals and standards. Then search for projects that will help you achieve them. It's really no different from adding traditional materials to the curriculum.

Here are some important questions to ask during review of a site:

- Does the content support existing curriculum, instructional concepts, or themes?
- Is the site age-appropriate?
- Is the content accurate, current, thorough, relevant, and usable?
- Does the site have identifiable biases?
- Does it present multiple viewpoints?
- Does the site contain any content that might be deemed inappropriate in school?
- In what relevant ways does the content offer experiences that extend learning?

Jane Krauss' fourth- and fifth-grade classroom in Oregon's Eugene School District offers a prime example of letting the curriculum drive the use of the Web. Krauss' students were studying the phases of the moon, but cloudy weather blocked their view of the actual orb. So they turned to Virtual Moon Phase (http://tycho.usno.navy.mil/vphase.html).

Another example: Krauss and colleagues have created a Web site (http://www.4j.lane.edu/WebSites/Harris/Mimi/Voyage_Home.html) that their students used in conjunction with a software curriculum on oceans, Voyage of the Mimi, published by Sunburst. The publisher liked the site so much, Krauss says, it put the site on the Sunburst Web site and gave the school a free copy of the latest curriculum, including an expensive video library.

During yet another unit in which students researched countries around the world, Krauss' kids used films and other traditional research materials along with a set of appropriate Web sites chosen ahead of time by the teacher and "bookmarked" for students' use. They investigated these Web sites to get weather forecasts, learn about current cultural events, and find other information that they then used to write letters home from an imaginary trip to the country.

A "bookmark" is essentially a way to quickly return to a favorite Web site without having to retype the address again and again. After starting the browser (Net software), look at the menu bar (the words such as "file," "edit," and "view" that appear at the top of your screen) for the word "bookmark" or "favorites." Place the mouse cursor on the word, and click. A list of choices will drop down from that word (this list is called a menu). The word "add" should be on the menu. When you find a great Web site you think you'll return to over and over, use the process described above to bookmark the site. In the future, click the mouse on "bookmark" or "favorites" in the toolbar and when the menu drops down, notice that the site has been added to the list. Click again, and the site appears with no further effort.

This bookmarking saves the drudgery of typing in long Web addresses. Bookmarking is also a useful classroom tool. If, like Krauss, you were doing a unit on geography, you could bookmark a set of sites that students could choose from during their research. Using bookmarks to preselect sites can help guide students through the Web maze.

In Alaska's Fairbanks School District, teachers maintain and share extensive bookmark lists in subject-specific areas. A comprehensive list of teacher-selected sites indexed by curriculum areas is maintained for use by anyone visiting the district's Web site

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Skip Via, technology specialist for Alaska's Fairbanks School District says: "One way we use the Web is as a medium for publishing student work. We have had instances of students receiving unsolicited scholarship offers based on their published work. We have had student work selected for publication in the mainstream press (including some books). And we have had well-known authors contact our students about their writing. This has given students a broad audience for their work. Some of their efforts have won international recognition in contests."

Via recommends the following sites:

- The Internet Public Library (http://www.ipl.org/), Educational Hotlists (http://sln.fi.edu/tfi/hotlists/hotlists.html), a collection of online reference works at http://www.cs.cmu.edu/references.html, StudyWeb at http://www.studyweb.com/, and Ask an Expert! (http://rpnie.dl.stevens-tech.edu/curriculum/aska.html)
- For learning to use the Net and computers in the classroom, Via recommends the district's own help desk site at http://www.northstar.k12.ak.us/help/desk.html
- For curriculum, he recommends the district's Web site at http://www.northstar.k12.ak.us/web/local/local.html
- Via's list of worthwhile mailing lists and listservs includes http://www.education-world.com; http://www.tile.net/tile/listserv/index.html; http://www.edoc.com/ejournal/; http://www.ipl.org/; http://educom.edu/web/pubs/edreview.html; http://www.chaos.com:80/netteach/index.html; http://ole.net/ole; http://fromnowon.org; http://www.syllabus.com/; http://www.nap.edu/readingroom/books/techgap/index.html

The Library in the Sky

THINK OF IT AS AN INFINITELY EXPANDING UNIVERSE OF IDEAS, resources, contacts, and curricula. The Library in the Sky (http://www.nwrel.org/sky), the online resource collection of the Northwest Regional Educational Laboratory, offers a galaxy of educational opportunities to teachers, students, parents, and librarians all over the planet. Open one door, and it will lead to another. Look through one window, and a world of educational opportunities appears—a world that changes weekly as new Web sites and resources are added and "dead links" are removed. Sitting at your computer, you can:

- Become a "virtual seismologist" through Virtual Earthquake, an interactive computer program that introduces you to the techniques of locating and measuring an earthquake
- Visit the CyberLatin Web site to find "tons" of information about ancient history as well as self-correcting quizzes, software programs for reviewing Latin grammar topics, and examples of student work
- Have students explore the evidence for and against the existence of global warming through the Global Warming Project home page
- Find a wealth of lesson plans and teaching activities for school librarians through the LION (Librarians Information Online Network) home page
- Study the University of Southern Mississippi's "*Cinderella* Project," a text and image archive containing a dozen English versions of the fairy tale (and then move on to *Little Red Riding Hood* and *Jack and the Beanstalk*)

This is a just a tiny sampling of the endless educational resources you can tap through the ever-growing virtual library. Launched in 1995, The Library in the Sky contains nearly 6,500 links to other Web sites. If you've visited in the past, you'll find navigating the site much easier and quicker after a major redesign by Web developer Peter Campbell of the Northwest Laboratory.

You can enter the library in two different ways: by keyword search or by your role in education. If you know what you're looking for, you can type in a few key words and search the library's extensive database. If you're a teacher, you can click the "Teacher" button and you will be taken to a page tailored specifically to the needs and interests of teachers. Students, parents, librarians, and community members also have pages tailor-made to meet their needs and interests.

"The great thing about the library is that it does the searching and careful selecting of information for you," Campbell notes. "Try doing a search for 'lesson plans,' for example. The last time I tried, I got 59,178 matches. How do you know which ones are the best? Who has the time to look at 59,178 Web sites? All the resources in the Library have been reviewed and found to be of high quality for our users."

To be included in The Library in the Sky, resources must be useful for teachers, students, parents, librarians, or the community. They must be safe and appropriate for children. They must contain what Campbell calls "real stuff"—actual documents, projects, pictures, lesson plans, discussion groups. And they must be current. Most resources considered for The Library in the Sky have been recommended by an educator, a librarian, or a national reviewer.

If you have suggestions or comments about The Library in the Sky, contact Peter Campbell at (503) 275-0684 or campbelp@nwrel.org.

The Northwest Educational Technology Consortium, operated by the Northwest Laboratory, also maintains a Web site (http://www.netc.org) focusing on several areas of educational technology: integrating technology with teaching and learning; identifying and supporting leaders at the building level; developing and implementing technology plans; and building infrastructure for networking and telecommunications. Additional technology resources and regional information can be accessed through the Technology Center at the Northwest Laboratory (http://www.nwrel.org). From the Laboratory home page, select "Programs and Services" and then "Technology." The Technology Center's resource librarian Amy Derby can respond to reference and information requests. Contact her at derbya@nwrel.org or (503) 275-9565.

BASIC GUIDANCE FOR BEGINNERS who want to bring the worldwide computer network into the classroom is available from the Education Research Service in its 1996 publication *The Internet Roadmap for Educators*. "Exploring the Internet is like embarking on a journey," the book asserts. "To arrive at your destination, you need to know where you're going, how you'll get there, and what to do if you encounter a roadblock."

Promising to take readers where they want to go, the book gives:

- Examples of innovative ways educators and students are using the Internet
- A listing of education-related sites, newsgroups, and mailing lists
- Examples of collaborative, Internet-based classroom projects
- Instructions for using tools such as e-mail, newsgroups, the World Wide Web
- Discussions of copyright issues and safety guidelines
- A glossary of Internet terms

Among sites listed are Roadmap (http://ua1vm.ua.edu/~crispen/roadmap.html), "a popular site that provides a free, 27-lesson Internet training work-

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shop." Another is the Busy Teacher's Web Site (http://www.gatech.edu/lcc/idt/Students/Cole/Proj/K-12/TOC.html), which "serves as a one-stop Internet location for teachers, grouping classroom resources by subject area."

Copies can be ordered for $20 (plus $3.50 for shipping) from: ERS, 2000 Clarendon Boulevard, Arlington, VA 22201. For information, call (703) 243-2100 or send e-mail to ers@access.digex.net.

GET AN UP-CLOSE AND PERSONAL LOOK at the teachers and students involved in the 10-year Apple Classrooms of Tomorrow study in *Teaching with Technology: Creating Student-Centered Classrooms*. Published in 1997 by Teachers College Press, the book gives a detailed account of how teachers' roles, strategies, and attitudes changed over time when their classrooms were saturated with computers and other high-tech equipment. Authors Judith Sandholtz, Cathy Ringstaff, and David Dwyer describe the gradual alteration of technology-rich classrooms from teacher-centered to student-centered. As technology took hold, students began playing a more active role in their own learning. Meanwhile, teachers gave up their position as "sage on the stage" to become coaches or facilitators—the "guide on the side."

The book offers insight into a broad range of changes—many of them unanticipated—that occurred as the project progressed. Kids who were low achievers or social misfits, for example, often blossomed when they had access to technology. Peer tutoring became commonplace. Students often surpassed their teachers in technology savvy to becoming expert resources not only for other students but for their teacher, as well. Assessment strategies moved away from reliance on traditional testing toward more use of performance and portfolio assessments.

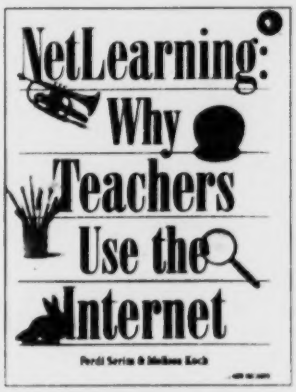
Here's an excerpt from the book: "The benefits of technology integration are best realized when learning is not just the process of transferring facts from one person to another, but when the teacher's goal is to empower students as thinkers and problem solvers. Technology provides an excellent platform—a conceptual environment—where children can collect information in multiple formats and then organize, visualize, link, and discover relationships among facts and events. Students can use the same technologies to communicate their ideas to others, and to add greater levels of understanding to their growing knowledge."

The book is full of anecdotes—real-life stories about the struggles and successes of teachers and their students. It conveys the frustrations and struggles of venturing into new technologies as well as the surprises and triumphs.

You can order the book for $18.95 (plus $2.50 for shipping) from Teachers College Press, P.O. Box 20, Williston, VT 05495-0020. For more information, call 800-575-6566 or visit the Web site at http://www.tc.columbia.edu/~tcpress/.

BRIMMING WITH IDEAS FOR TEACHERS who want to venture onto the information highway is *NetLearning: Why Teachers Use the Internet*, a fat book and accompanying CD-ROM from Songline Studios.

"*NetLearning* is a guide with stories by educators for educators who seek to understand the learning opportunities the Internet provides," write authors Ferdi Serim and Melissa Koch. "This work



addresses the educational benefits of connecting to the Internet, and in doing so, relies upon the real-life experiences of hundreds of Internet pioneers. Each of these people remembers the dues paid in becoming cybercitizens and hopes to reduce the pain of your learning by sharing his knowledge."

Stressing the importance of linking technology to curriculum goals, the book offers detailed descriptions of all sorts of online resources and tools along with firsthand accounts of actual classroom strategies and practices. Among the topics the authors touch on are:

- Planning online exchanges with experts
- The project-based classroom
- Interactive communication tools
- How the Internet supports learning
- Working with agencies such as NASA and the U.S. Geological Survey
- Creating your own projects

The book is packed with addresses of promising Web sites, where teachers can find ideas, hook up with existing projects, or get further training in using new technologies.

Copies can be ordered for $24.95 (plus $4.50 for shipping) from The Book Shelf, EPE, Suite 432, 4301 Connecticut Avenue NW, Washington, DC 20008. For information call 800-346-1834.

***"MY EIGHTH-GRADERS AND I HAVE ONE CLASSROOM COMPUTER**, a pieced-together 286 PC that somehow manages to run Windows on one megabyte of RAM. Hooked up to a 2400 bits-per-second (bps) modem and phone line, it isn't exactly state of the art, but we love it. It works and it gets us out—out the door to a world beyond Pease Middle School and San Antonio, Texas...."*

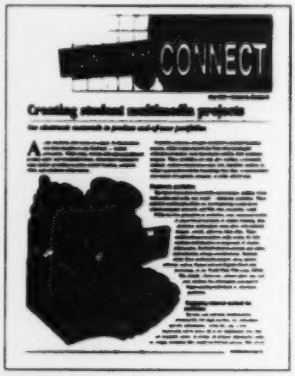
These words from teacher Linda Maston begin a collection of case studies, *Tales from the Electronic Frontier*, compiled and published by the WestEd Eisenhower Regional Consortium for Science and Mathematics Education. The slick, colorful book presents the first-hand accounts of 10 teachers who have used the Internet in K-12 science and math classrooms. Linda Maston's story, "Something in the Air," describes how students' scientific sleuthing led the school district to repair a faulty ventilation system in the school. Glenn Lidbeck's account, "Confessions of a Fourth-Grade Newbie," describes a multischool project to measure the Earth's magnetic field at different locations. Other stories describe student research in the fields of astronomy, meteorology, ecology, and geology, among other explorations. All of the stories are written in a lively narrative format, honestly recounting both the high points and low spots of classroom experiments in networking.

The words and actions of students and teachers come alive in the telling. Here's an example from Karen Nishimoto: "Now I was the one feeling nervous. None of us were Internet experts. I had been using e-mail for four months; most of the students had been using it for one. What if something went wrong? I didn't want students spending all their

time troubleshooting technological glitches. I was also concerned with how telecommunications would fit in with what we currently do. I want my students to learn how to think scientifically and to conduct scientific investigations. How would using e-mail help them to learn and carry out these processes?"

Throughout the book are sidebars listing Web sites that offer curricula, online projects, and other resources. The book also provides tips on newsgroups, electronic mailing lists, training opportunities, acceptable use, and "shareware" (free software).

Copies can be ordered for $9.50 (plus $4 for shipping) from: Tales from the Electronic Frontier, WestEd, 730 Harrison Street, San Francisco, CA 94107. For information call (415) 565-3000.



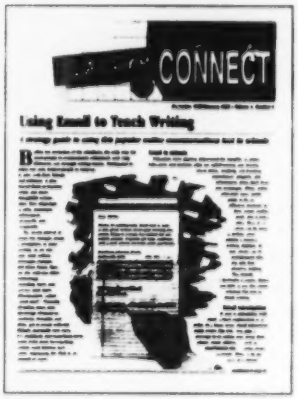
LOOKING FOR A GOLD MINE OF PRACTICAL TIPS and ideas for integrating new technologies into your curriculum and instruction? A newsletter called *Classroom Connect* might be just what you need. Published nine times a year, the magazine-style newsletter is crammed with lesson plans, Internet resources, success stories, global projects, new-user basics, and dozens of Web sites for teachers, teens, and kids.

The lead story on a recent issue focused on multimedia projects and electronic portfolios. It discussed the relative advantages of software such as HyperStudio, ClarisWorks, HyperCard, The Digital Chisel, and Microsoft PowerPoint. It offered tips for "harvesting" online images, video clips, and sound effects. And it provided addresses for Web sites where readers can see examples of electronic portfolios.

Another recent cover story was about using e-mail to teach writing. Stating that "e-mail can be incorporated into any unit that involves writing," the article discussed "keypals" (online pen pals) and provided addresses for a number of keypal sites where readers can find students to link up with. It also talked about using e-mail as a publishing tool, contacting online authors, and corresponding with students who speak other languages. Also discussed were online mailing lists for young writers.

"*Classroom Connect* is one of the best sources for information about Web sites," says Amy Derby, resource librarian for the Northwest Regional Educational Laboratory's Technology Center.

For a year's subscription, send $39 to: Classroom Connect Inc., P.O. Box 10488, Lancaster, PA 17605-0488. For more information, contact Editor Kathy Housley, 800-638-1639 or mail to: editor@classroom.net. Visit the Web site at http://www.classroom.net.



KIDS DO A LOT OF THEIR COMPUTER WORK AT HOME. To help parents to better understand and monitor their children's online explorations, the U.S. Department of Education has produced a booklet titled *Parents Guide to the Internet*.

Beginning with the very basics (it defines terms such as "mouse" and "modem"), the booklet takes readers through the steps of choosing a computer, getting connected to the Internet, "surfing" (browsing) the World Wide Web, using electronic bookmarks, sending e-mail, joining online mailing lists, and other Internet-related activities.

Of particular interest to parents is the section titled "Tips for Safe Traveling."

"Just as we tell our children to be wary of strangers they meet, we need to tell them to be wary of strangers on the Internet," the booklet stresses. "Most people behave reasonably and decently online, but some are rude, mean, or even criminal."

The booklet advises teaching children that they should:

- Never give out personal information (including their name, home address, phone number, age, race, family income, school name or location, or friends' names) or use a credit card online without a parent's permission.
- Never share their password, even with friends.
- Never arrange a face-to-face meeting with someone they meet online unless a parent approves of the meeting and goes with them to a public place.
- Never respond to messages that make them feel confused or uncomfortable. They should ignore the sender, end the communication, and tell a parent or another trusted adult right away.
- Never use bad language or send mean messages online.

Other sections of the booklet give guidelines for limiting children to appropriate content on the Internet and supporting school use of technology. An Internet site listing categorizes sites as "family-friendly," "megasites," "online reference material," and "sites for parents and parent groups." A glossary defines common terms encountered in online travels.

Single copies of the booklet can be ordered by calling 800-USA-LEARN. You can also find it online at http://www.ed.gov/pubs/parents/internet/.

—Lee Sherman

GOING SOLO

Continued from Page 44

questions about stories and literary techniques. (You can view my Sophomore Review Game on the World Wide Web at http://www.ttsd.k12.or.us/schools/ths/jdubois/short_story_review.html.)

If you are blessed with having a multimedia-capable computer, the range of possibilities is endless. I have used movies such as *The Black Stallion* and *The Natural* to teach visual literacy. Students write about and discuss examples of visual literacy observed in the film: zooming for emphasis, juxtaposing scenes to show relationships, foreshadowing to create suspense, lighting to set a mood, camera angle to create an illusion, and so on. When we finish, I give them a visual-literacy test, one in which I have embedded stills from the movie into a ClarisWorks slide show along with enlarged text questions. This extends their understanding, challenges their thinking, and reinforces their awareness of an entirely new way of seeing.

An equally exciting multimedia adventure is making tutorials for prominent characters in Shakespeare's *Julius Caesar*. These instructional slide shows acquaint readers with the characters by presenting information, character motivation, and brief film clips, which students watch before acting out the characters in their reading groups.

Eventually, I became confident enough to require students to include in their term project some aspect of technology—a digital image, a graph, a Web page—that was entirely new to them. Once a week they had class time to work on the project—and yes, we did have access to a computer lab. But we could have scheduled the work throughout the week, giving several students a chance to use the classroom computer each day. Some projects, such as a vocabulary slide show and quiz, became a study resource for other students.

My experiences have taught me that the one-computer classroom truly has the potential to be dynamic, with new possibilities unfolding as time, creativity, and comfort allow. Perhaps most exciting of all is how the computer opens the door to new roles and relationships: student-as-instructor and teacher-as-facilitator.

Jeanine DuBois teaches language arts at Tigard High School, where she avidly promotes technology as an educational tool. In addition to 19 years of teaching English, DuBois has several years' experience teaching workshops for educators through the Northwest Regional Education Service District, Tigard-Tualatin School District, Portland Macintosh Users Group, National High School Association, and NCCE. To visit her educational Web site, point your browser to http://www.ttsd.k12.or.us/schools/ths/jdubois/JD.html. ■

CONQUERING THE COMPUTER

Continued from Page 39

(http://www.northstar.k12.ak.us).

One final thought about conquering the computer: Have a sense of humor. The day you're ready to use the computer in your classroom for the first time will undoubtedly be the day some horrible glitch will foil your lesson plans. So always have a Plan B that doesn't require the computer. And persevere. As with adopting any new tool, the day will come when you can't imagine how you got along without it.

Resource Note: If you own or have access to an Apple Macintosh—the computer found in most Northwest classrooms—there are two good beginning resources: *The Little Mac Book* by Robin Williams and *Beyond the Little Mac Book* by Robin Williams and Steve Broback. "These little books have big content covering the essentials of operating a Mac," says Derby.

If you own or have access to a personal computer, try reading *PCs for Dummies* by Dan Gookin. The title is strictly humorous. Even though the first chapter covers such basics as how to find the "on" switch, the book never talks down to the reader.

Technical editing for this article was provided by Amy Derby. ■

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Creative ideas for the one-computer classroom

By [illegible]

I've become one of those teachers who drools over incorporating technology into my lessons. But I wasn't always that way. Six and a half years ago, I felt overwhelmed. The idea of trying to blend digital pictures, slide shows, interactive telecommunications, and the Internet into my teaching was somewhere between unheard of and downright terrifying. Back then, all I wanted was to type tests on our library's Commodore 64—without having it go haywire before I saved. Since it took 15 minutes to save one document, it was a race against the clock.

A district policy (a very smart policy!) allowing teachers to take a computer home over the summer turned my attitude around. That summer, I signed up for several Macintosh classes through the Math Learning Center at Portland State University. And I played. I made greeting cards with graphics. I created a database for addresses and birthdays. I wrote letters, drew pictures, and even made spreadsheets for keeping track of grades and attendance. This playtime often stretched into the wee hours of the morning.

As I explored and experimented on my Macintosh, I relived the joy of discovery every day. And I formed an opinion: Kids learn computers fastest because they play. Likewise, we teachers need time to play and become comfortable—even excited—about our computers in order to extend their usefulness in classroom instruction.

Over the next few years, my classroom computer use evolved exponentially. At first, the best I could do was to calculate grades, keep attendance, and create handouts and tests with graphics. During that time I learned an important lesson: This contraption was not a mysterious beast that would suddenly self-destruct. What a relief! I just needed time to become secure.

Once I developed some confidence, if only a teensy bit at first, I found that even one computer in a classroom added to my ability to differentiate curriculum, thus challenging my gifted students and assisting my struggling students. I found that a single computer could both enrich instruction and level the playing field, benefitting all my students. A student whose vocabulary was far above the rest of the class, for instance, could use the SAT prep program to stretch herself. A student whose motor coordination made it nearly impossible to write an essay was no longer inhibited by a physical handicap. Through membership in the Portland Macintosh Users Group, I discovered countless programs—many of them public-domain (free) or shareware (inexpensive try-before-you-buy)—that can be used for individualized student instruction. Today, many people discover these resources by surfing the Internet.

Often the classroom computer serves as a tool added to my arsenal of books and other materials. When writing an essay centered around a quotation, for instance, my sophomore language arts students use both *Bartlett's Familiar Quotations* (the book) and *Quotable Quotes* (the Macintosh program). When doing consumer research on a prospective purchase (anything from a pager to a car to a bread machine for Mom or Dad), my junior English students might access *Consumer Reports* magazine online (http://www.consumerreports.org) to find a key issue missing from our collection. Other times a CD-ROM may provide an additional resource. The *Time Almanac*, for example, includes original articles dating back to the early 1900s. A U.S. atlas and a world atlas are also available on CD. The World Wide Web, too, may excite students with the latest discoveries in space or in a university across the world. Sites rich in information useful to students include NASA's Jet Propulsion Lab (http://newproducts.jpl.nasa.gov), the MayaQuest visit to Mayan ruins (http://www.classroom.net/) and the U.S. Holocaust Memorial Museum (http://www.ushmm.org/).

Early on, I discovered that my Macintosh could use a large-screen TV if I connected a $300 presentation device (Presenter Plus Mac/PC Multi-Frequency) between the computer and the television. Initially, this became a way to present textual information—such as vocabulary due dates or lists of ideas generated during a class brainstorming session—in a visual form. The next day, the material could be printed out for absentees, who could retrieve it from the daily absence folders.

The computer/TV duo became a great way to assist visual learners. Whether I presented a chart for organizing data or a brief slide show previewing a lesson, visual students could see where we were going and better fit the ideas into a mental framework. On occasion I even created a literature review game with student-generated

Continued on Page 43

NORTHWEST EDUCATION

Quarterly magazine of the
Northwest Regional Educational Laboratory

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EdPress WINNER
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NW EDUCATION

ALTERNATIVE SCHOOLS: CARING FOR KIDS ON THE EDGE

NORTHWEST REGIONAL EDUCATIONAL LABORATORY

SUMMER 1998

RC021500

NW

Learning from the Margins

Mat-Su

Portland Night High School

Mansion on the Bluff Catches Lives on the Edge

Meridian Academy

In the Library

Teacher's Notebook

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Square Pegs in A Round World

In the popular movie Benny and Joon, Johnny Depp plays an unusual young man. "Sam" can impersonate Charlie Chaplin, Buster Keaton, and other legends of the silent screen. He's a walking encyclopedia of film lore.

But filling out a job application is a challenge because he can barely read or write. My favorite scene shows Sam at his brilliant best, doing a mime routine that attracts an audience of admirers in a city park. When he finishes to a round of applause, an onlooker asks if Sam attended a special school to learn such wonderful performance skills. Sam looks surprised by the question. Oh, no, he says. "I got kicked out of school for doing stuff like that."

Too bad Sam's options were so limited. Today, a growing number of alternative school programs provide choices to students who, for a variety of reasons, feel as if they don't "fit" in mainstream schools. If placed in more traditional classrooms, they can wind up like the eccentric Sam: square pegs in a round world. Some grow disillusioned with school and drop out. Others get angry and disruptive. If they can find the right setting, however, these same students can often make academic and behavioral strides that amaze their teachers—and themselves.

In this issue of Northwest Education, we hear from researchers who are excited about the results and innovations coming from alternative programs across the country. We trace where the alternative movement came from, look at the educational philosophies behind today's alternative schools, and show how these small programs are pioneering big changes in education.

We also explore some of the complex social issues that have created such demand for these programs. As one teacher said about her students: "The stories these kids tell can move a stranger to tears." Some have been squeezed by poverty, hurt by violence, forced to grow up too fast because of teen pregnancy. Others have simply grown bored by a curriculum that doesn't touch their lives.

We'll walk you through several classrooms in the Northwest to show you how these programs work. You'll meet the teachers who thrive on working with students others have found too hard to reach. And you'll meet several graduates of these innovative schools. Shined and polished by programs and people who wouldn't let them fail, they put a human face on the population so often labeled "at risk."

— Suzie Boss

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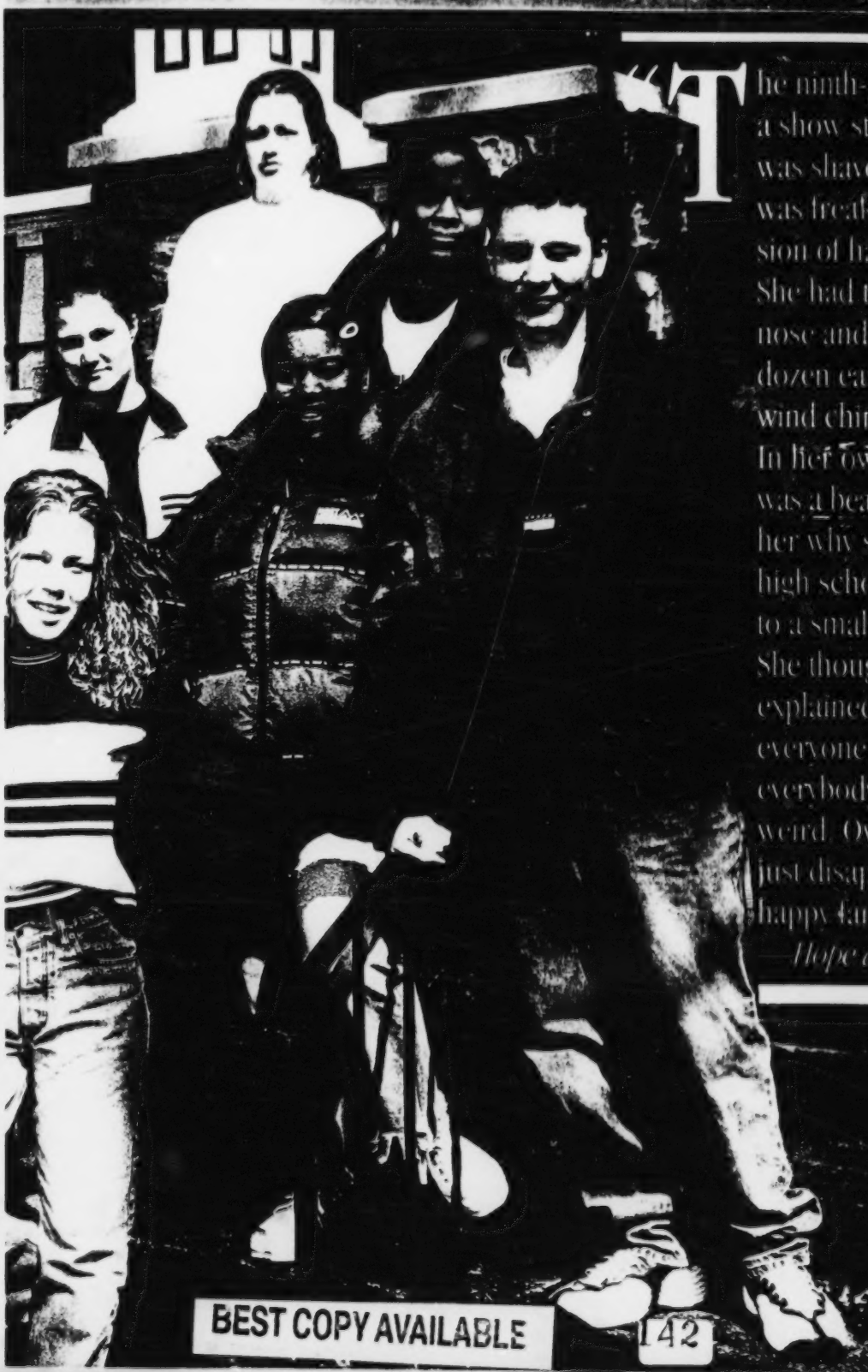
Learning From the Margins

The Lessons of Alternative Schools

By SUZIE BOSS and Bob Sigler



"The ninth-grade student was a show stopper. Half of her head was shaved, and the other half was freaked out in a bold explosion of hair, bells, and ribbons. She had three gold studs in her nose and was wearing at least a dozen earrings that jingled like wind chimes when she moved. In her own distinctive way she was a beautiful young girl. I asked her why she had left her former high school to travel across town to a small alternative program. She thought for a moment then explained, 'At my other school everyone treated me like a geek; everybody thought I was kind of weird. Over here . . . it's like, I just disappeared into this really happy family. . . .'

Hope at Last for At-Risk Youth

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Students attending the nation's estimated 15,000 alternative schools come in all sorts of colorful packages. More than a few adopt hairstyles, wardrobes, street language, and attitudes that would make them stand out—or be kicked out—of mainstream classrooms. But what's most remarkable about this diverse student body isn't outward appearances. It's that these students, many of whom face obstacles ranging from poverty to teen pregnancy to long-term academic failure to chronic delinquency, are making an appearance in school at all.

A growing body of research and years of anecdotal evidence show that students who have been labeled failures, troublemakers, or dropouts in traditional schools can thrive in smaller, more individualized settings. That may sound like plain common sense to any teacher who has worked to pull a struggling student back from the brink. It's especially timely news, however, as communities across the country wrestle with the staggering social and economic costs associated with undereducated youth. After years of operating on the margins of public education, alternative schools are getting a serious look from many different interest groups: proponents of school reform, corrections workers overwhelmed by juvenile caseloads, and employers concerned about finding enough educated young people to fill tomorrow's workplaces.

Robert D. Barr of Boise State University and William H. Parrett of the University of Alaska Fairbanks took a comprehensive look at the mounting body of research literature regarding at-risk students, much of it generated at alternative schools in the Northwest. Their detailed findings, published in *Hope at Last for At-Risk Youth*, help explain why these diverse schools are earning such widespread attention. As the authors explain, "Once at-risk students leave the difficult world of traditional school classes and enter the supportive, focused programs of an alternative school, truly remarkable achievement often occurs."

Mary Anne Raywid of the Center for the Study of Education Alternatives has witnessed hundreds of similar success stories over the years. In her research review in *The Handbook of Alternative Education* she writes, "Alternative schools are known for the dramatic turnarounds they often bring to the lives of individual youngsters whose previous school performance has ranged from poor to disastrous. Well-substantiated evidence is harder to come by," Raywid adds, "but gradually the hard evidence is piling up."

That hard evidence includes studies showing improvements in academic performance and self-esteem, and reductions in behavior problems and dropout rates, among students in alternative settings. These schools can't work wonders in every difficult case, of course. Nor can schools alone untangle the web of social and economic problems that put so many children in jeopardy. But the results coming from alternative settings are convincing. Barr and Parrett go so far as to argue that alternative schools should be a key component of "a blueprint to restructure public education" so that all students will have a fighting chance to succeed in school.

Many of the current buzzwords of school reform—performance-based education, school choice, school-to-work transition, experiential learning—have long been realities at alternative schools in the Northwest and across the country. Now, with an explosion of interest in these program, it's worth investigating what the margins can teach to the mainstream.

WHO NEEDS AN ALTERNATIVE?

At least a quarter of the students who entered the nation's high schools as freshmen in 1994 never got the chance, four years later, to don a cap and gown. Before they could march across the stage to receive their diplomas, they either dropped out, or were

pushed out, of public schools ill equipped to cope with such wrenching problems as family dysfunction, domestic violence, poverty, and homelessness. Dropout rates run even higher in urban areas where these issues are most acute, according to *Staying in School: Partnerships for Educational Change*.

What happens to the kids who disappear from the educational system? Statistics paint a grim picture. More than 80 percent of prison inmates are high school dropouts; teen parents who have two or more children can expect to remain on welfare for a decade. According to a 1997 Juvenile Justice Bulletin ("Reaching Out to Youth Out of the Education Mainstream"), "Research has demonstrated that youth who are not in school and not in the labor force are at high risk of delinquency and crime. Society pays a high price for children's school failure. In 1993, one-fourth of youth entering adult prisons had completed grade 10; only 2 percent had completed high school or had a GED."

After a decade of study, researchers can chart the characteristics of students most at risk of school failure. According to the *Staying in School* report, "Black, Latino and less-affluent Americans of all ethnic groups and nationalities drop out at far higher rates than members of other groups, especially in the inner-cities."

Studies also show that students are more likely to leave school early if they have a history of poor academic performance or low attendance; if they are older than their peers by the eighth grade (often due to retention); if they become pregnant during high school; or if they need to work to support their families.

Barr and Parrett add, "Research clearly indicates that many school attempts to help at-risk students (including retention, expulsion, and ability tracking) too often backfire and become contributing factors toward forcing students out of school."

Dale Mann, writing in *Teachers College Record*, describes a "collision of factors" leading to an individual student's decision to leave school: "Most students quit because of the compounded impact of, for example, being poor, growing up in a broken home, being held back in the fourth grade, and finally having slugged 'Mr. Fairlee,' the school's legendary vice principal for enforcement." As Mann points out, school-related factors are often only part of this complicated picture.

Much of the research on at-risk youth has focused on the problems these students face at the time they leave school. But often, their academic challenges begin years earlier, even before they start school. *Ready to Learn*, a 1991 study by the Carnegie Foundation for the Advancement of Teaching, reported that more than one in three kindergartners arrive at school unprepared and poorly equipped to learn. "If children do not have a good beginning," the study cautioned, "it will be difficult, if not impossible, to compensate fully for such failings later on."

After years of watching a steady percentage of their students fail to become engaged in learning, educators have become adept at predicting which kids will be lost from the system. "Using only a few identified factors, schools can predict with better than 80 percent accuracy students in the third grade who will later drop out of school, Barr and Parrett report. Subjective factors, they add, are often as telling as hard data: "Regardless of what others might call them, teachers have always known these kids. They have known them as disinterested and disruptive, as those students who refused to learn, and as those who they thought could not learn. And they have known these students as those who, by their presence, have made teaching and learning so difficult for all the rest." According to Public Agenda, 88 percent of teachers nationwide believe academic achievement would improve substantially if persistent troublemakers were simply removed from class.

Every student who leaves the system early, either by choice or as punishment, loses much more than a diploma. These young people "are being disconnected from the functions of society," argues Fred Newman, director of the Center on Organization and Restructuring of Schools at the University of Wisconsin. "Not just from economic productivity," he adds, "but from the functions of citizens in a democracy."

Because the costs of losing touch with at-risk students are so profound, many states have passed legislation allowing alternatives. Oregon law goes so far as to require districts to provide educational alternatives for students who either are not meeting, or are exceeding, educational standards. Some Oregon districts contract with private schools to provide alternatives while others create their own, unique programs. In Washington, where the state actively encourages and supports alternative education, the number of alternative schools expanded from 44 schools in the mid-1970s to more than 180 in 1995.

WHAT IS AN ALTERNATIVE SCHOOL?

Alternative schools have long been defined by what they are not: Not in the educational mainstream. Geared for students not succeeding in traditional classroom settings. Not bound by the conventional rules and regulations regarding textbooks, class size, curriculum, grades, teaching styles. But what are they, exactly?

There is no simple answer. An alternative "cyberschool" in California delivers individual instruction via home computers to high school students who range from gifted to slow learners. In Connecticut, an adventure curriculum is built around rock climbing and other forms of outdoor education designed to build students' self-esteem. Students in a Foxfire program in New England conduct oral history interviews in the community to learn how local folktales reflect their culture.

In the Northwest, alternative programs are similarly marked by innovation and variety. Students interested in real-world education can gain experience at jobsites in the community while developing their own "master skills" (such as reasoning, problem solving, and communications skills) through a program called CE2. First developed in Tigard, Ore., CE2 has been adopted in dozens of other communities. In rural Idaho, an alternative school serves students in grades K-12 with small classes, a schoolwide focus on technology, and outdoor learning experiences in which older students act as counselors for their younger classmates.

Clearly, programs labeled "alternative" cover a varied map. While they are diverse in organization, teaching style, and curriculum, many of today's alternative schools can trace their roots to the free schools or community schools founded during the 1960s. Richard Neuman, writing in *Phi Beta Kappan*, describes the early alternative schools as springing from an idealistic, counterculture era when the progressive educational ideas of John Dewey enjoyed a resurgence of popularity.

The early free schools shared a general belief that education should be tailored to students' needs and interests, Neuman recounts. "Consequently, alternative programs attempted to blend academic subjects with practical areas of knowledge and personal interest. They offered individual learning plans for each student. Students developed their personal learning plans and made curricular decisions. Faculty acted as partners, collaborating in development and operation of their school." Unlike more traditional schools, these institutions avoided tracking, ability grouping, and other forms of labeling.

Many of these ideas have endured as alternative schools have evolved. Today, educational alternatives include a smorgasbord of private and public programs, each one with a distinct flavor. What they con-

tinue to share, according to Jerry Mintz of the Alternative Education Resource Organization, "is an approach that is more individualized, has more respect for the student, parent and teacher, and is more experiential and interest-based."

While the earliest alternative schools were designed as options for any student who wanted to experience a different style of learning, today's public alternative schools are more likely to be problem-solving programs geared to serving a specific population of struggling students.

Education Week defines alternative schools as "public schools which are set up by states or school districts to serve populations of students who are not succeeding in the traditional public school environment." This shift in emphasis led Don Giles to write in *Changing Schools*, "The term alternative is no longer generally regarded as applying to a variety of models but instead has become associated exclusively with nonconforming programs for 'at risk' or 'bad' students."

Because alternative schools have meant different things in different communities, researchers looking to compare programs have run into an apples-and-oranges dilemma. As Raywid explains in *Making a Difference for Students at Risk*, "The challenge in researching effectiveness of these programs has been the absence of a standard definition."

Yet most alternative schools do emphasize central themes and philosophies, Raywid notes, citing "smallness, personalization, interpersonal relationships, and a primary focus on students as human beings."

By looking at patterns in alternative school organization, teaching methods, and philosophies, Raywid has found three models that emerge from the thousands of individual programs currently in place across the country.

• **Restructured schools.** These schools, progeny of the early free schools, may start as early as the primary grades. They bring progressive educational principles to a wide population of students. Some, such as Metropolitan Learning Center, a K-12 program in Portland, have endured since the 1960s. Many of the new charter schools opened since the early 1990s have adopted a similar child-centered philosophy. Although not specifically designed for at-risk youth, these programs often incorporate ideas that work to the advantage of students who are struggling in the mainstream.

• **Disciplinary programs.** Violent or disruptive students are "sentenced" to these diversion programs, such as New York City's recently approved Second Opportunity Schools. Sometimes nicknamed "last chance highs," these institutions provide high school or middle school students with a mix of behavior modification and intensive individual attention. In theory, they also benefit mainstream students by removing troublemakers from class.

• **Problem-solving schools.** Alternatives specifically designed for at-risk students, these programs tend to be nonpunitive, more positive and compassionate for students in need of extra help, remediation, or rehabilitation. They often provide a network of academic, social, and emotional assistance to students who have been unsuccessful in the mainstream. Pan Terra High School in Vancouver, Washington, for instance, develops a personalized learning plan for each student and allows for flexible scheduling, with class blocks offered from morning through evening.

If free schools sound somewhat like educational utopias, then Raywid suggests two more metaphors to describe the other models. Disciplinary programs resemble soft jails, while problem-solving schools are more akin to therapy.

HOW THEY SPELL SUCCESS

"This is the only school where I've never had an attendance problem, where I was interested in learn-

ing, and where the teachers were there to help me. Most people I know in my position would have quit school, so I'd say I chose 'the less traveled road.' The difference in my life has been great," wrote one student in an essay.

When alternative schools work, they work wonders. They offer students who thought they were failures a taste of success. They reach the hardest- to-reach. Although such stories can seem miraculous, there's no magic formula behind programs that enable students to succeed. Indeed, research shows that it's not what alternative schools teach, but how they work with students that can make a difference.

In Expelled to a Friendlier Place, Martin Gold and David W. Mann suggest two factors most likely to help delinquent youth improve in alternative settings:

1. A significant increase in the proportion of a student's successful vs. unsuccessful experiences
2. A warm, accepting relationship with one or more adults

A change of setting, they point out, can serve as a fresh start for a student who has learned to associate school with failure. As one teacher observes, "Kids know, when they arrive here, that they've stumbled somehow. And they know everyone else here has stumbled, too. This is a place where they can start over, without all the grief."

Ironically, the discipline problems that may have bounced students out of the mainstream tend to be reduced in alternative settings.

In a national survey, Raywid found that the personal relationships alternative schools foster between students and staff were more critical for success than curriculum or instructional strategies. Similarly, Barr and Parrett observes, "Many alternative educators report significant improvement that is not directly related to the curriculum or the instruction (although these most certainly make a difference). It is student attitudes that seem to make the difference.

In *"Overcoming the Odds,"* Emmy E. Werner and Ruth S. Smith note that the more resilient youth in their long-term study often had supportive teachers "who acted as role models and assisted with realistic educational and vocational plans."

Choice is another key to the success of programs that work. "Alternative schools must be membership institutions, places with which the students want to affiliate," Raywid reports. "Nobody gets sentenced here," explains one program director, "not the students or the teachers."

Rather than operating as dragnets to pull students back from the brink of failure, effective alternative schools are more like safety nets into which struggling students can choose to jump. When researchers at the University of Wisconsin looked at 14 schools with successful programs for at-risk youth, they con-

Strategies for Teacher Success

1. Meet students at the door of your room every single day.
2. Call each student by his or her first name.
3. Engage all students in each class each day.
4. Set high standards for behavior and work.
5. Clearly communicate your expectations for student behavior and work.
6. Use varied methods of teaching (hands-on and student-centered activities).
7. Be consistent in rewarding behavior and disciplining misbehavior.
8. Call parents with good news and concerns. Use the "sandwich" approach (put the concerns between slices of good news).
9. Understand the impact of homework on many students.
10. Let your students know that you are truly interested in their welfare.

SOURCE: Meridian Academy

147

cluded, "The key finding of our research is that effective schools provide at-risk students with a community of support."

Barr and Parrett synthesize research findings into these three "essential characteristics" of effective schools for at-risk youth:

1. Comprehensive and continuing programs. Students who are not thriving in mainstream schools are seldom helped by short-term alternatives that dump them back into their old schools after a few weeks or months. In long-term programs, students can benefit from efforts that may address academic, social, family, and health concerns.

2. Choice and commitment. In the most successful alternative programs, both students and teaching staffs choose to participate.

3. Caring and demanding teachers. Barr and Parrett point to caring and demanding teachers as perhaps "the most powerful component in effective programs for at-risk youth." They explain, "There is an abundance of research that emphasizes how important it is for teachers to care for at-risk youth, to believe that these students can learn, and then to hold high expectations for them as learners."

Small program size also seems to be a critical factor, according to both the research literature and those who work in alternative settings. "However great we may be," observes a writing teacher from an alternative high school in Portland, "even we wouldn't be getting very far if we had to deal with a class of 35 kids. Staying small is the only way we can keep these kids from getting lost all over again."

Students often arrive at alternative schools lacking or behind in basic skills. Many students are surprised at how quickly they can make up for lost time in programs that deliver individualized instruction. Rather than doing slowed-down, remedial work, they may find themselves on an accelerated learning curve.

In Teaching Advanced Skills to At-Risk Students, Barbara Means and Michael S. Knapp explain the logic behind accelerated learning for students who may have struggled to keep up in regular classes. Remedial education, they say, tends to "postpone more challenging and interesting work for too long, and in some cases forever. Educationally disadvantaged children appear to fall farther and farther behind their more advantaged peers as they progress in school."

Rather than focusing on a student's academic deficits and insisting on mastery of the basics before a student can move ahead, they outline an alternative approach that acknowledges a student's intellectual strengths. This doesn't mean ignoring the basics. Instead, they use "a complex, meaningful task" as the context for instruction.

The active learning approach found in most alternative settings means instruction is delivered through dialogue rather than lectures. Students practice advanced and basic skills while being actively drawn into problem solving. For instance, students might study the physical principles involved in shooting a basketball foul shot, or analyze the lyrics and structure of a rap song as if it were a sonnet. They wind up acquiring new skills along with a new belief in their capacity to think, and their leap in confidence can help make up for lost time.

Although alternative school teachers work with some of the hardest-to-reach students, they report a high degree of job satisfaction. They enjoy the creativity required to connect with students who have not previously enjoyed learning. In studies of the most effective alternative programs, researchers have found extensive collaboration between teachers. Alternative programs typically involve the faculty in designing programs and developing curriculum. One research team described "a climate of innovation and experimentation" among the faculty at effective alternative schools.

PIONEERING NEW IDEAS

One of the best known alternative school programs in the country was started almost by accident in New York's East Harlem neighborhood. Recounting the story in *Miracle in East Harlem*, former Deputy Superintendent Seymour Fliegel describes this neighborhood as "one of the toughest and poorest" in America, with one in seven adults unemployed and violent crime twice the citywide average. Being at risk of school failure was more the rule than the exception for his students. In 1973, East Harlem had the worst academic performance of New York City's 32 school districts. At one high school, 93 percent of the ninth graders dropped out before graduation.

Yet by 1987, the percentage of East Harlem students reading at grade level had soared from 16 percent to 63 percent. Student achievement zoomed from 32nd place to 15th place. Dropout and truancy rates had declined dramatically.

The difference, Fliegel asserts, could be traced to the opening of 26 small, innovative alternative schools focused on meeting individual student needs. Each school was started by a teacher or a small team of teachers who had a dream about how to deliver education. The district, frustrated by chronic student failure, gave them the autonomy to bend the rules and experiment with alternative approaches. The result, Fliegel believes, has been "more congenial environments for students and teachers alike." East Harlem took many of the lessons first learned in alternative schools back to the mainstream, creating small schools designed and run by committed teaching staffs who were encouraged to be creative in designing programs.

As school reform efforts continue in the Northwest and elsewhere in the country, similar applications of the alternative school model may be ahead. Alternative schools have pioneered such concepts as cross-age grouping, schools without walls, nongraded learning, competency-based graduation requirements, school choice, and site-based decisionmaking. Observe Barr and Parrett, "It is startling to consider the vast numbers of concepts, approaches, and programs first developed in alternative schools that now have become widely used in traditional public schools."

Despite their well-documented success and innovation, alternative schools continue to operate in the shadows of mainstream education, often fighting an uphill battle for respect. Some schools continue to struggle against being treated as "dumping grounds" for hard-to-handle kids. "They are likely to be seen as fringe or flaky...as programs for losers, misfits, misbehaviors," Raywid admits.

Gold and Mann, whose research has demonstrated the value of alternative programs for students with serious delinquency problems, lament that these innovative schools "are particularly fragile. It does not take much to close such schools—an incident of violent behavior, an unfavorable report on achievement test scores, a tight school budget."

By their very design, alternative schools have a flavor that's unlike the mainstream. "We have a different look, taste, and feel," acknowledges a teacher who has spent his long career in alternative settings, working one-on-one with students who could not, or would not, survive among "30 students in a cell with a bell."

For a student who has felt stifled in a traditional classroom, the difference can be as invigorating as fresh air. At his graduation from the Portland Night High School in 1997, Chris Moore summed up the benefits of an alternative education in his simple but joyous song:

I think it's amazing
What teachers here have done.
A kid comes in upside down
And they turn him around. ■

149

"Small program size also seems to be a critical factor, according to both the research literature and those who work in alternative settings. "However great we may be," observes a writing teacher from an alternative high school in Portland, "even we wouldn't be getting very far if we had to deal with a class of 35 kids. Staying small is the only way we can keep these kids from getting lost all over again."

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MAT-SU: A PLACE WHERE KIDS BELONG

By Samantha Morrissey

WASILLA, Alaska – Dawn comes slowly here in late winter. Fingers of light stretch across a gray sky that holds the promise of turning blue. A school bus rolls to a stop, snow crunching under its tires, and a group of teenagers steps off the bus in a collage of denim, plaid flannel, baseball caps, backpacks, and headphones. Two toddlers link hands with their moms and follow the others through the glass doors into Mat-Su Alternative School.

Inside the heart of the school, a packed, multipurpose room pulses with activity. At small round tables students hunch over textbooks with notebooks open and pencils in hand. A steady rhythm of fingers punching keyboards comes from the computer lab along one wall. Roving students mingle with friends or help themselves to breakfast. From his desk by the front door principal Peter Burchell takes it all in, mentally noting who is absent and what he needs to take care of today while bantering with students and answering the phone.

When a boy hands him a slip of paper, Burchell looks at it and booms, "Kevin Whitney. Thank you, Jesus! U.S. History, grade B." The room breaks into

151

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applause and cheers as Kevin takes back his credit slip with a grin. Each time a student earns half a credit or completes a course, Burchell performs what he calls a "ta-dah" before the entire school. Every achievement at Mat-Su, no matter how small, is recognized.

All of the students at this alternative school 45 miles north of Anchorage have failed in—or feel failed by—mainstream schools. Mat-Su accepts students between the ages of 15 and 21 who have dropped out of school, are behind in credits for their age, and are committed to earning a high school diploma and acquiring work skills. Students find in the school the direction and resources they need to get back on the education track. In the process, they discover how to become successful, contributing members of society.

Burchell—Mr. B. to everyone at the school—is principal, boss, teacher, caseworker, and friend to his students. He relishes every role.

"The number one criterion for school policy is what's going to help kids the most," Burchell says. He uses the analogy of a three-legged stool, the strongest piece of furniture you can build, to explain his definition of success. Academic skills, social skills, and vocational skills are the three legs. Kids need a balance of all three to develop a strong, stable foundation for the future.

For most of Burchell's students, social skills are the weakest leg, the reason they have failed in traditional schools. Of the 175 students at Mat-Su, almost a third don't live with their parents, a quarter are parents themselves, and nearly as many have spent time in juvenile detention or jail. Many students have been abused, addicted to drugs or alcohol, or homeless.

In educating these kids, the school has to first remove the barriers that keep them from getting an education. Mat-Su helps students overcome their challenging backgrounds by offering diverse programs, including an onsite day care center, food and clothing banks, an Alcoholics Anonymous program, and a full-time work-study coordinator. Perhaps most important, the school gives them a place where they belong.

A PLACE OF THEIR OWN

Beside Burchell's desk, a boy rifles through a box of snacks that sell for a quarter, and finally decides on some potato chips. When a lone coin drops into the box with a *plink*, Burchell looks up from his work and questions, "A dime, Todd?" Todd, who is fishing in his jeans pocket for the rest of the change, protests, "I don't want to rip you off, Mr. B. I'd just be ripping off myself."

The kids at Mat-Su have developed a sense of ownership in the school and their pride is evident. No graffiti decorates the bathroom walls or covers the tabletops. No cans or cigarette butts litter the parking lot. The school has had only five fights in 10 years, which is remarkable considering the behavior problems many kids have when they first walk through the doors.

"I won't tolerate graffiti or stealing," says student Steven Humphreys. "All the other schools, I didn't care. I would have burned them down myself. But this one, I won't let anybody (mess) with this one."

Steven started using drugs when he was 11 and was in juvenile detention six times before he was 16. Three years ago Steven decided to get sober, and he credits the school for helping him work through his addictions. "If I told them to go away, they wouldn't," he says. "When you screw up, they don't get on your case. They tell you what you did wrong and how to fix it."

The teachers at Mat-Su have changed Steven's approach to schoolwork because, for the first time, he was expected to succeed. "I disrespected the teachers at first," Steven says. "But the more I screwed up, the harder they tried. I never expected it in a million years. I expected to be kicked out in a few months."

Earning the trust of a student like Steven can take time, and teachers here have learned to balance optimism and realism with persistence. The school is open 12 months a year, 14½ hours a day.

Lydia Wirkus, who teaches English, writing, and government, says: "I think most of the kids come here not trusting, not believing in themselves, and with few appropriate social skills. They are usually way behind in academics. All we can do is meet them where they are and accept them for who they are—look past the weird hair and clothes, look past the anger. They may not have a clue how to change, but we give them ideas and let them do it."

The school's informal environment allows Wirkus and the rest of the staff to relate to students in ways that would be difficult in a larger school. Classes at Mat-Su are small, never more than 15 students, because these kids demand individual attention. Here, they receive it.

Faculty "offices" are desks in the main room where the students spend much of the day, and teachers take breaks and eat lunch with the students. Kids call teachers by their first names and often sit with them at their desks, where they catch up on their classes and their lives. The atmosphere is deliberate and designed to make students feel comfortable approaching teachers. Sometimes this is half the battle, because if a student doesn't feel comfortable approaching a teacher, chances are good that student will be too intimidated to ask for help.

The close quarters allow students to keep an eye on teachers in the same way teachers check on students. Many of these kids have never had positive relationships with adults and lack adult role models, so watching the teachers do their jobs, interact, and handle stress in constructive ways is often as crucial to the students' education as anything the curriculum provides.

At Mat-Su, nobody cares whether a student is a sophomore or a senior —it's all about credits and individual progress toward graduation. "The growth I see in them is the growth they choose to make," Wirkus says. "We can facilitate that growth, but we are in no way responsible for it."

GROWING WITH THE STUDENTS

The school has come a long way from its humble beginnings with a single $35,000 grant and five students in a neglected portable classroom behind Wasilla High School. Two and a half years ago Mat-Su moved to its present location in a former Chevrolet dealership, a 20,000-square-foot building on seven acres. In its 10-year history, Mat-Su has received more than $6 million in grants and gifts. The majority of the school's funding now comes from the Mat-Su Borough School District, but that wasn't always the case.

Every room of the school bulges with evidence of Burchell's creative fund-raising techniques. The initial furniture and toys in the day care center were made by prisoners and donated to the school. Computers, furniture, and soda machines came from a closing military school. Grow lamps and shelves in the greenhouse are compliments of the police department. Seized from marijuana growers in a drug bust, the equipment now helps lobelia seedlings survive the long Alaska winter.

"I have kneepads on underneath my pants. I have no pride left," Burchell jokes. "Most people don't tell you 'no' more than once when they know you are right."

Science teacher Tim Lundt has learned from Burchell what grants bring to the classroom. His students have been tracking ruffed-spruce grouse, a popular sport-hunting bird in the valley, in a project with the Alaska Department of Fish and Game that is funded by grants Lundt wrote. Every Friday three students traipse through bear country, supervised by Lundt, in search of the grouse. The students humanely capture the birds with snare poles and equip them with a nickel-sized radio collar. The class then tracks the grouse and looks for patterns.

In Lundt's classes, traditional science skills are taught through unconventional projects that challenge students and hold their interest. A road-kill moose sparked another project—and stocked the food bank—when students butchered the moose and canned the meat. Now Lundt's biology class is reconstructing the skeleton.

"The kids enjoy what we are doing," Lundt says. "A student once said, 'This is what I wanted —not book work, but hands-on stuff.' I try to come up with projects that keep kids involved. To show them that they can go to college and do science."

LEARNING TO BELIEVE

One of the first lessons kids at Mat-Su learn is to believe in themselves. They have all heard the put-downs and know that some people think their school is a place for losers. Some kids have even believed it themselves. These students may come to Mat-Su confident only in their ability to fail, but they walk down the aisle at graduation certain of their ability to succeed.

"It's okay not to be the best at everything. Just focus on what you are good at," Burchell tells his students. "Most of all please yourself. Succeed according to your own definition of success, not anyone else's."

More than 300 students have graduated from Mat-Su, and 75 have gone on to college. If college isn't a goal, then the school prepares students for jobs that pay more than minimum wage. "Kids need to learn how to learn, set goals, and develop real skills. We want to teach kids how to be dependent on themselves, not to depend on other people or on handouts," Burchell says.

Student Carolynn Laliberte has learned to depend on herself in her three years at Mat-Su. "In normal high school I learned nothing. All I remember are two words: facetious and enigma," Carolynn says. "Here, instead of teaching you who the third president was, they show you how to fill out tax forms." Jacob, her 20-month-old son, spends his time in the school's day care center chasing soap bubbles and bouncing on knees while his mom is in class.

Next year Carolynn will be attending the University of Alaska in Anchorage, and tears well in her eyes when she talks about graduating. Her biggest worry is Jacob being in a new day care center. The fact that the day care at Mat-Su is onsite makes it easier for students like Carolynn to leave their babies.

Carolynn thinks teen parents at Mat-Su have a better chance of succeeding than kids in mainstream schools, which is good because the school has close to 50 teen parents right now. "Don't sigh when you hear this," Carolynn says. "You should applaud because these are teen parents who go to school and have jobs and are parents."

Pregnant students and those with children are required to take parenting and life skills classes. An updated version of home economics, life skills teaches students how to manage a house, a car, and a job. In parenting class students learn the different behavioral and developmental stages of a child's life, but the atmosphere is informal, often more support group than traditional class. Sheri Lehman, who teaches parenting and life skills, often finds herself asking, "Is it more important to stay on Chapter 9 or to talk with a student who is tired because the baby was up all night?"

Burchell thinks of the school as life challenging. Because the majority of Mat-Su students leave high school and go straight to work, the curriculum concentrates on vocational skills as much as academics. Students are required to

work at least 15 hours a week in addition to their classes, and the school accommodates work schedules by staying open until 9:30 p.m. World of Work is one of the few required courses at Mat-Su, and students in this self-directed class write resumes and use a computer program called AKCIS to explore career paths and determine the types of work they are best-suited for.

"The job experience is great. They push you, but not to the point where your head is going to explode," says Tamara Tabor. Tamara is one of the students involved in the "Teen Power Hour," a show produced by a local radio station under the supervision of the school's work-study coordinator.

"On the first day of the radio show, you had an hour to prepare —write the opening, read it, write the closing, read it. I didn't even know I knew how to do it," Tamara says. "I found that if I don't know how to do something, or I'm not prepared, I pretend I know what I'm doing. So I pretended I was a DJ. I faked the whole thing, and it turned out fine."

Tamara, who was homeless from May to October of last year, has gained confidence since coming to Mat-Su, and her work with the show reflects this. "I've seen a lot of growth in myself. It's not all the school," Tamara says. "I've thought it would be fun to be a DJ. Maybe I can do it."

John House-Myers runs the vocational construction program at the school, and his students are

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SHAWN MORGAN: Learning Responsibility and Respect

WASILLA, Alaska— Shawn Morgan chops a roasted red pepper, adds it to a bowl of minced onions, and tosses the two together. A radio blares overhead, drowning all sounds but that of knife hitting butcher block when he dissects the next pepper. Scooping the pieces with the flat side of the knife, he runs an index finger down the blade and slides the pepper into the bowl with the others. Morgan's restaurant opens for dinner in two hours, and he is making a sauce for tonight's special.

Morgan and his family own the Shoreline Restaurant on the banks of Wasilla Lake in Alaska's Matinuska-Susitna Valley. Morgan, the restaurant's chef, was the first student to graduate from Mat-Su Alternative School. Now 29, Morgan graduated in 1988, when the school was in its inaugural year. Back then the school was housed in half of a portable classroom behind Wasilla High School and had just five students.

The school has moved onto bigger and better surroundings, but it hasn't forgotten its roots. A gold plaque hanging over the door to the men's bathroom at Mat-Su bears the name Shawn Morgan and reads "He helped acquire this building for MSAS students. "I probably wouldn't have gone to college without talking to him. I went back years after I graduated to talk about college with him, whether I could go," Morgan says. "I guess he pulled something out of me."

Morgan dropped out of the mainstream high school when he was only three credits short of graduating. For Morgan, even that seemed like too much. He says he was working a lot, and partying a lot, and not taking advantage of his education. "I didn't have my priorities straight," he says.

When Morgan got his act together, he decided he needed to graduate. Going back to the public school after dropping out was not appealing, so Morgan decided to try the alternative school. "There you could just go and finish your credits," he says.

Morgan, who started working in restaurants years ago, has long had a goal of buying a restaurant of his own. He attended the Western Culinary Institute in Portland, Oregon, and his family bought the Shoreline last September. "We've outgrown this place already," Morgan says. "We've been jamming. We have a full house most days, and we are packed on the weekends."

Morgan says his time at Mat-Su, however brief, taught him two crucial things: responsibility and respect. He says principal Peter Burchell motivates his students. "I probably wouldn't have gone to college without talking to him. I went back years after I graduated to talk about college with him, whether I could go," Morgan says. "I guess he pulled something out of me."

Morgan remembers calling Burchell while he was at culinary school, especially during holidays or other lonely times. "What I've learned from him is basically that it all comes down to you. You're the one who's got to make decisions in your life," Morgan says.

A pan of demi-glaze simmers on the stove behind him, and he pauses to stir it. Morgan's time at Mat-Su was brief, but he was at the school long enough to develop a relationship with Burchell. Judging from the stories of Mat-Su students—both past and present—that's enough to change your life.

—*Samantha Morrisey*

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involved in their biggest project yet, building a portable classroom for next year's science classes. Seven students gather around House-Myers in the field behind the school as he impresses on them the importance of measuring five times and cutting only once.

"Do you guys know how much this beam, times two, and this beam, times two, costs?" he asks the students.

"A lot of money," one boy quips.

"I want a dollar amount," House-Myers persists.

"A hundred dollars?" another boy guesses.

"Try $1,430," House-Myers tells them.

The class splits into two groups to measure a support beam that will be the foundation of the classroom. By the end of the hour a few of the students are worried about their progress. "It's all right. It's gonna work out," House-Myers tells them. "Trust me. It's gonna work out."

The construction projects are good for the students because they are tangible, House-Myers says. "You can stand back at the end of the day and say, 'This is what I did today.' It's real for them." The kids don't get paid for their work on the projects, but they do get school credit. House-Myers believes that for these students, success builds on success. "If we can hold on to you long enough, we will change your life," he says, and then corrects himself: "We will *help you* change your life."

Students at Mat-Su get out of the school what they put into it. They are given the resources and support to succeed, but they have to do the work.

Mat-Su is not required to accept referrals from mainstream schools. Prospective students are interviewed by a panel of students and teachers, and they must complete a detailed questionnaire about their specific goals, both immediate and long-term, to be admitted. Students must attend school on the closed campus for at least three hours each day, and missed time must be made up within two weeks. If an absence is not called in by 11 a.m., students double their make-up time. Students keep planners with daily, weekly, and long-term goals, and faculty advisors meet with them weekly to check their progress and give them a nudge when needed.

The school is good at giving second chances—and sometimes third and fourth chances as well. When a student doesn't show up for school, the faculty advisor calls. If the student still doesn't return, Burchell makes the call. Mat-Su always has a waiting list, so students who aren't willing to work lose their place to someone who is.

When kids don't work out and are suspended from the school, Burchell tells them, "We'll never stop loving you, but we'll never change the rules." Students are welcome to come back to the school when they are ready to follow the rules.

Burchell connects with most of his students, but has learned that it is impossible to reach everyone. For Burchell, the only thing harder than a student who drops out and doesn't return is when a student dies.

Eleven young trees line the front of the school, barely noticeable without their leaves. One has been planted for each student the school has lost in its 10-year history. Four more trees wait to be planted when the ground thaws in the spring. Some of the deaths were the result of accidents, but half were suicides. Burchell is silent as he thinks about the students who have slipped away. He has a theory that you have to either hug kids or harass them. "The only way to lose them is to ignore them," he says. "Silence is always approval."

"I was six-foot-five when I started this job, now I'm five-foot-six," Burchell jokes. "My body can't take much more of this."

Burchell plans to retire August 15, but he is confident that the school will continue to succeed. "I'm afraid for me personally leaving. I'm not afraid for the school. I've got a great staff," Burchell says. "I don't know a person who has a better job in the state of Alaska. I really don't."

The staff seems to feel the same way. "He's given us the opportunity to change a lot of kids lives. And it's changed our lives in the process," says House-Myers.

Two students lead toddlers, bundled in coats and caps, from the day care center to the front door to meet the bus. The toddlers make a beeline for Burchell's desk. Burchell —now Grandpa B.—takes a tin milk jug filled with candy from beneath his desk and trades lollipops for hugs. This is his favorite part of the day.

Some people may look at his school and see only misfits and dropouts. He sees opportunities and bright futures. As Burchell replaces the lid on his candy tin, his student calls out to her son, "Tell Mr. B thank you." ■

PORTLAND NIGHT HIGH SCHOOL: PRESSING ON THE ACCELERATOR

Story and Photos by SUZIE BOSS

By day, Grant High School in northeast Portland pulsates with the energy of 1,500 teen-agers following the rhythms they've come to associate with school. Lockers slam, bells ring, basketballs bounce, textbooks open and close at predictable times.

By night, a few dozen youth make their way downstairs to a corner of the Grant basement. There's a whole different rhythm when Portland Night High School comes to order. Most of these students have already put in a day's work before they slip into their wooden desk chairs. Those who are teen parents (about 15 percent of the group) have had their hands full all day, changing diapers, wiping noses, reading stories. Night school comes at the end of their day, but many of these students say it provides them with a new beginning in life.

For 25 years, Portland Night High School has offered students a way to complete their secondary education even if they've already started a job or a family. "These are the students who used to be frozen out of an education if they had to go to work," explains David Mesirow, who directs the award-winning alternative program and is also one of its five teachers.

Students must choose to enroll in this program, and choice remains a theme throughout their night school experience. The students themselves elect how fast they will move toward high school completion. Regular attendance helps them press ahead, but they aren't punished if work or family demands keep them away from class for a few days. "We're looking for ways to help students along," Mesirow explains, "not to punish them if they're absent." There's no assigned homework, although students can choose to do extra independent work to earn credits faster. "It's like pressing on the accelerator to help them get out faster," Mesirow says.

And grades? Forget about the old A-F scale. Nobody fails classes here. If their performance isn't up to par, they haven't failed; they just have more work to do. Report cards read like bank statements, with an accounting of credits earned and bar graphs showing the percentage of tasks completed. But that doesn't mean credit is given easily. Students must demonstrate their competency in order to earn course credits.

Curriculum includes high school standbys such as math, history, and writing, but the content is skewed to grab attention. A social studies course might focus on "street law," for instance. A class in which students read biographies helps their reading skills, while also introducing them to role models and giving them the uplifting message that "life is like a work of art."

Writing labs offer students a chance to examine the difficult issues in their own young lives. In every class, thinking and problem-solving skills are honed and sharpened. Observed a recent program graduate, "Other schools I've attended teach you a collection of facts. This one taught me how to think."

Teachers at the night school "have to have an uncommon grasp of common knowledge," Mesirow observes. "It takes someone who can be flexible, who is able to listen, and who can help students connect pieces of information."

With room for 115 students and the length of stay averaging four months, this is a school where everyone is on the fast track. Traditional high school class standings (freshman, sophomore, etc.) don't apply here. Students understand that they're finished with school as soon as they complete the requirements for a diploma or pass the test to receive a GED. As a result, Mesirow finds his students "more purposeful" than their daytime counterparts in more traditional classroom settings.

Discipline is seldom an issue, even among students who arrive with a long track record of behavior problems. "We're relatively free of having to teach civilized behavior," Mesirow says.

Small class sizes enable teachers to get to know their students as individuals and to adapt lesson plans to match specific needs and interests. No one has a chance to feel anonymous or out of the loop. "Teachers speak to everybody in class, everyday. You can't slip through the cracks here," one student observed. Students call teachers by first name and know them as friends, mentors, and role models in addition to instructors.

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AARON JOHNSON: Finding a Place That Cares

Wearing a crisp white dress shirt and tie as he heads off to his new job in a high-rise office building in Portland, 25-year-old Aaron Johnson has a purposeful look about him. This is a young man with a plan, heading somewhere in life.

When he pauses over a cup of coffee to think about who he was a decade earlier, he has trouble dredging up a clear memory. "That was a long time ago," he says.

At 16, Johnson had just dropped out of Portland's Jefferson High. Disenchanted and uninterested in school, pulling a paltry 1.8 grade point average, he didn't see the point in sticking it out any longer. "I never got a grip on what school was supposed to do for me," he recalls. He wasn't a troublemaker, at least not in obvious ways. "I was quiet, but that doesn't mean I was good. Sneaky was more like it," he admits. He felt hemmed in at home, which he shared with a grandmother who was also his adoptive parent.

"It was clear I wasn't going to succeed by following the normal course, so I figured I'd find another identity," Johnson recalls. He left home, moved in with a girlfriend, and was tempted to earn some quick money in the street culture that had sucked in many of his peers. "That could have given me a new identity, a different kind of membership," he admits. As a young black man without an education or a job, he had trouble imagining a decent future for himself.

But for Johnson, an alternative came along. His grandmother, who is a teacher, told him about Portland Night High School. From the first night there, he knew he had arrived somewhere different.

The teachers treated him in a way he had never experienced before, either. "From the start you get the feeling that somebody cares about you. Before, I felt like I had been branded as a failure. These teachers, though, refused to accept that. I responded to their faith in me." He felt his curiosity stir. One class discussion about the stock market grabbed his attention, and he wasn't ready to stop learning at the end of class. He cornered his teacher in the hallway. They made time to continue the discussion later, outside of school.

"That teacher became a mentor to me, and that was cool," Johnson says. "For the first time, I had a way to imagine myself as someone successful."

Johnson also found a day job as a messenger at a Portland law firm, where he encountered more role models. Suddenly, his own life seemed full of paths and possibilities.

At night school, the absence of traditional letter grades worked to Johnson's advantage. "If your work is not up to par, you do it again. There's none of the stain of failure."

Within a year and a half, Johnson had graduated from night school and began taking general education courses at Portland Community College. "That was another big step for me. At first it felt like a brick wall," he admits. He drew support from the night school teachers who had become his friends, allies, cheerleaders. "I knew I could always go back to them," he says.

Johnson took another leap and enrolled at Whitman College in Washington. He graduated in 1992 with a degree in philosophy. Now, he's working in the human resources department of the Northwest Regional Educational Lab while also pursuing graduate studies in philosophy at Reed College.

His dream today? Johnson aspires to earn his doctorate and become a professor of philosophy. It's a field of study he first encountered at Portland Night High School. "At night school, teachers would ask me, 'What do you think, Aaron? What's your voice saying?' That was different from memorizing a set of facts. Learning how to think for yourself is the whole point of an education. It's the single most important paradigm, asking yourself, 'Why am I here?'"

—Suzie Boss

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The deliberately small scale of operations allows for the one-on-one nurturing and tutoring that many students need. "In her old school, my daughter would get jammed up all the time," explained the father of a night school student. "Maybe she wouldn't understand an assignment. So she'd go to her teacher for help. But her teacher would be too busy to help her. So she wouldn't get it done. Then she'd fail the class because of uncompleted work. The same teacher would say, 'Why didn't you get this project done?' Here, they always make time to help you."

With Oregon school reform efforts putting a new emphasis on school-to-work transition, Portland Night High School suddenly finds itself on the cutting edge of innovation. The school-to-work (STW) concept may sound trendy, but this program has been offering a bridge between school and work since its founding a quarter-century ago.

Each student in the night school is expected to work, volunteer in the community, or handle parenting duties at least 16 hours each week, in addition to the 14 weekly hours of evening class. To smooth the transition between school and work, teachers visit the students' worksites. Back in class, teachers can help students make connections between what they're doing on the job and what they're learning at school. In addition, teachers have a chance to talk with employers about ways to make the curriculum mesh more effectively with real-world career opportunities.

Students also create a portfolio, which becomes a tangible record of their accomplishments. Mesirow considers the portfolio one of the program's most valuable components. "It's a habit in our culture to keep track of your stuff," he explains. "Your tax records, your immigration status, your work history—these documents tell who you are."

Student portfolios include a transcript and concrete examples of "what you can do," Mesirow explains. Students learn to use the portfolios as tools during job interviews to show exactly what they are capable of accomplishing. "It's your toolbox," Mesirow tells students, "the very best toolbox you can leave high school with."

The school-to-work program has earned Portland Night High School federal grants, awards, and other recognition. The school serves as a field test site for the Northwest Regional Educational Laboratory. The Oregon Department of Education selected the school as one of 15 prototypes for what the Alternative Learning Centers called for in recent educational reform legislation.

Despite the acclaim, the school operates almost invisibly in the basement of a large school building that would otherwise sit empty at night. Night school students and staff leave no footprints behind. Operating in classrooms "borrowed" from the day school, the night program is a model for using facilities economically. But the lean arrangement creates some challenges. Teachers don't have access to bulletin boards to create visual displays that might enhance curriculum. They can't leave long-term projects or props up on the walls. There's no school library open at night, and the only drinking fountain in the basement space has been broken for two years. The gym is available to night students only for a few weeks in the spring.

The highlight of the year is the annual night school graduation, an emotional rite of passage for the youth who once thought they'd never get this far and the teachers who showed them the way. Last year, 54 students received high school diplomas and another 24 were awarded GED certificates. An open mike awaits any brand new graduate who wants to share an experience, a story, or a thought that first came to life late one night, in the basement of Grant High. ■

160

MANSION ON THE BLUFF CATCHES LIVES ON THE EDGE

By Shannon Priem
Photos by Rick Stier

The 1910 landmark perched on a bluff over the Willamette River houses one of Portland's best-kept secrets.

Outside, the yard is tended by a corps of teenagers while their aging golden retriever Elmo greets visitors.

Inside, the over-stuffed couches, bay windows, and lace curtains invite you into the laughter and conversation. You sense a home where people like each other—where the art over the huge mantle is charged with emotion, and the framed faces on bookshelves are exuberant and wearing graduation caps.

The area rugs scattered over polished oak floors are curled from years of wear and tear. You want to step on the edges. Don't bother because at least 100 pairs of shoes will scramble over them throughout the day with an even more relentless desire: To succeed in high school.

"We're been meaning to fix those," laughs Carole Smith, school director as well as student leader and friend.

But Smith and her staff are too busy fixing more important things.

The Open Meadow Learning Center is a private alternative high school tucked in a north Portland neighborhood.

It's about as far as you can go before falling into the Willamette River. Students land there in an academic safety net after going about as far as they can go before dropping out of school—or society.

Students like Angel, Mary, Veronica, Josh, Joel, and Nick had given up on high school (or high school had given up on them). As OMLC juniors and seniors, they now love talking about their future. Angel wants to be a pediatrician. Joel looks forward to his internship with the City of Portland. Mary's hoping for an interview with the Oregon Primate Center, and Josh has turned his energy from drugs and theft to championship boxing. Veronica wants to be a trauma nurse. Nick, who helped plant 2,400 seedlings, hopes to showcase the school's successful CRUE (Corps Restoring the Urban Environment) program at a national convention in New Orleans.

Words like *love* and *respect* and *no b.s.* are sprinkled throughout their conversations about staff and each other. Despite their "at risk" label, to an outsider they act more like young college students.

"I've heard these students speak in public and there's never a dry eye," says Jim Cruckshank, OMLC Board president and corporate controller for Schnitzer Steel.

OMLC focuses on assessment, academic skill development, life skills development, pre-employment training, peer-advocate groups, group counseling, individual and family support, and transitions to work or college.

RELATIONSHIP-BASED LEARNING

While the school's existence may be little known, there's no secret to its success. In a word: relationships.

Creating strong, positive relationships with caring adults has been OMLC's mantra since it began in 1971as part of the teen drop-in "coffee house" days in downtown Portland.

"We're distinct from many alternative schools because Open Meadow is relationship-based, not packet-based," explains Smith, executive director since 1982. "It's not a place where kids can power through to make up credits or do packets at home. Coming to school is part of our culture."

The center's Advocate Groups are key to building strong relationships. OMLC teachers have two roles—as educators and as advocates for their students. Besides teaching classes, the "teacher/advocate" works daily with groups of 10 to 12 students. They share problems, confidences, and feelings. Teacher-advocates will go to bat for their kids, and have been known to argue on their behalf at faculty meetings. They also work with parents and other organizations in the students' lives, such as counselors and probation officers.

"In many cases, we provide the first positive relationship they've had with an outside adult," says Holly Anderson, a teacher-advocate. "It is also a very powerful force, more than even I imagined." Anderson had just learned that some of her students were having trouble making the transition to their new advocate, since Anderson will be leaving to start OMLC's new middle school.

"I was surprised that some aren't able to make the transition—it shows how profound primary relationships are to these kids."

EIGHTY PERCENT ATTENDANCE REQUIRED

Getting students to attend school is among Open Meadow's biggest challenges since many students were classified as "non-attenders" in public school. Ironically, OMLC's average daily attendance rate is 86 percent.

The school's small size and low profile help keep OMLC close-knit, Smith says. With the lack of anonymity, students who miss school are missed. Staff quickly follow up with the missing-in-action. An 80 percent attendance rate is required to pass classes. If students don't keep their attendance up, hundreds are lined up to take their place. Last year, OMLC admitted 87 of 650 who applied.

Students earn admittance through a screening process in which they convince staff they will knuckle under and try hard. At the end of their 30-day probation period, they face the entire staff

"I get the attention I need and I have great relationships with the staff. It's a really special place."
Josh

THE MAGIC OF DARREN DAVISON

With his easy-going manner and charm, it's hard to see Darren Davison as a social outcast.

Granted, this industrial manufacturing engineer from Epson is wearing a neon green T-shirt under a red Hawaiian shirt...but it is Saturday, and he's opening the door of his own business venture, Merlin's Starship in southeast Portland. He sells the popular "Magic: The Gathering" sci-fi fantasy cards and other games.

Davison is among thousands of students who got a jump-start from the Open Meadow Learning Center in Portland. He attended in 1984 after being expelled from Portland's Wilson High School.

"I was an anomaly and a screw off," he says. "I skipped school a lot. I wasn't nerdy enough, or popular enough to fit anywhere. I had no peer group. It was horrible."

Davison also recalls a passionate dislike for math.

"Hey, who invited the alphabet to algebra?" jokes the screw-off who later got hooked on math at Oregon State University, having no problem with statistics or the ring and wave-field theory behind black holes in the universe.

Davison remembers Carole Smith for challenging him. "She stuck with me by showing a new way of looking at math."

After being expelled, going to OMLC was a relief to Davison. "I knew what was expected, but I was also terrorized by the stereotype of alternative schools. It caused me to think — they're no different than I am. We were all there for the same reason."

Davison got back into the swing and returned to Wilson High. The happy ending should start here, but it doesn't.

In eight months, Davison started skipping again and dropped out completely. "It was another big vicious circle. So they suspended me—how's that punishment for someone who skips school?"

But this time, he had the skills and confidence to get his GED at a community college in time to catch up to his graduating class and enter OSU that fall. He's 21 credits shy of an engineering degree, but not for long. Epson is paying his tuition.

How would he change today's public high school? "If I were president, I'd get rid of it," he says. "Seriously, it's been said hundreds of times, but the kids you have to pay attention to aren't the ones in the straight lines. Some of us don't fit in. Some of us tend to wreck the neat, tidy schedules teachers want to keep. Teachers need to understand the reason they're here is to help kids, not to stand at the front of the room."

His advice to students: Get over the stigma of being different and don't worry about sticking out.

Today Davison looks forward to world travel, getting his engineering degree, and running his own Magic shop. He plays the game as a math problem, runs tournaments, and personally owns 2,000 cards, which he claims "borders on sickness."

He also collects Hawaiian shirts...anything to fit in.

—Shannon Poem

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again to discuss their progress.

The school is often the first structured experience for many kids. "A lot of our students raised themselves, so they struggle with the rules," Anderson says. "But we love them and they know it. As they begin to learn respect for us and for themselves, they can address the issues that blocked their success in school. High-risk youth need consistency from someone they trust."

Angel is a good example of that struggle. "I tried three times to get in, but I was just too busy being into myself," she says. "I was stubborn and angry." Angel was failing and had been expelled from public high school, then turned her "in-your-face" anger at Open Meadow. Today her attendance is near perfect and she leads school events.

So what happened?

Angel thinks about the question, nervously twirling her blond hair. "I think the reason is love."

Like other students, Angel had given up on learning. Part of her defiance was to protect herself from failure. She came to Open Meadow unable to spell even the simplest words. She hid behind her computer, avoiding staff. She wouldn't even look at her own test results. She thought she was stupid. She was ashamed, but didn't want anyone to know.

"They pay attention to you as a person, and they don't let you get away with anything," she says. "I finally learned that I could learn. I can do more, read more. I never had a guilty conscience before, but now I have one whenever I even think about skipping school."

A SAFE PLACE

"OMLC creates a safe environment for students like Angel," says Smith, noting that Angel now has beautiful writing skills and is one of the school's strongest leaders. "Once she knew she could learn she was engaged in the process."

Mary, stopping by to visit between classes, agrees. "Everybody cares here," she says. "You don't get brushed aside and have to deal with stuff alone. I kept saying I was quitting, well that was a year ago."

Josh had taken a wrong turn in life, stealing cars and landing in a drug rehab center. "I took a look around and didn't want to be there," he said. "I needed to get back to business. I was outta there quicker than anyone, four months." At OMLC he caught up with school, started boxing, and has become a leader on the school's Student Review Board. The board influences decisions, including hiring new teachers. "I feel important because we have a say here," Josh says.

What keeps him from slipping back?

"I have a memory. And you're lucky only so long," he says. "I'd eventually end up in jail, so why start again? I think about having a family, a boat, you know, the normal things."

"If not for Open Meadow, I would have dropped out of high school. This school has changed my life dramatically."
Kelli

"When I started here everybody made me feel welcome. I feel like I belong."
Angel

CRUE: UNDOING THE DAMAGE

Joel, dressed in a crisp white shirt, bounds down the steps with a fist full of ties. He's dressing on his way to "one of those over the shoulder deals" with the City of Portland environmental bureau. "I'm helping them set up a database," says the clean-cut boy in wire rim glasses.

He and classmate Nick are part of CRUE, OMLC's environmental work experience project with the Wetlands Conservancy. Last year they completed 42 service projects in the metro area. They were among the heroes who labored through the night to control damage during the Portland floods in 1996.

And they point with pride to the nature work they do. "We planted 2,400 trees—that's a good feeling," Joel says.

For Nick, CRUE made science come alive. His excitement for the environment comes through. "We've been working on the slough, restoring wetlands and water quality," he says. "Employers look for work experience, and I'm learning all kinds of stuff, like bio-engineering and math."

Teacher Andrew Mason sees the healing aspect of CRUE. "These kids have taken a beating on their own internal landscape," he says, "If they can clean up the world around them, it helps restore them. We work side by side, and when the opportunity comes up, I teach. When they make this sudden connection between learning and work, the questions pour out."

Another student says it best: "I really like doing things for the community because I want to make up for the damage that I did to it before, and it makes me feel good about myself when I go home."

CLASSES IN CUBBYHOLES, BEDROOMS

Classrooms are small, perfectly sized to fit into the mansion's bedrooms, lofts, and dens. Class sizes average 12 students. OMLC is a fully accredited high school, on track with Oregon's Educational Act for the 21st Century.

"It's exciting to know that what we've been doing all along is now considered mainstream," Smith says, noting their emphasis on applied learning. Classroom subjects include writing, journalism, English, literature, history, global studies, and government. Guests, such as actor/playwright William Harper from the Portland Repertory Theater, give special classes. Harper led a nine-week course culminating in professional actors performing the works of two student playwrights.

And at graduation, every student gives the valedictorian speech.

OUTSIDERS CREDIT STAFF

"Open Meadow is the perfect example why Oregon doesn't need a charter school law," says Leon Fuhrman, Oregon Department of Education alternative education specialist. "It's the oldest program I know of and Carole (Smith) has always been able to attract staff who really care about kids. It's the diversity of programs we offer that students, all with differing needs, can reach the new high standards. Why invent something new? We already have it."

A department survey revealed that 80 percent of students in alternative education programs stay in school, Fuhrman notes. "I can't wait to see how they do with the CIM and CAM; I have a hunch they'll create a little jealousy." The CIM (Certificate of Initial Mastery) and CAM (Certificate of Advanced Mastery) are part of Oregon's Educational Act for the 21st Century. Students reach these milestones after demonstrating levels of knowledge and skills that indicate an ability to succeed in life—regardless of their chosen path—after high school.

Jim Cruckshank, OMLC chairman, also credits Smith and her staff. "The staff is amazingly dedicated, which is what it's all about. They have created an environment in which kids want to learn."

Multnomah County, which also contracts students at OMLC, sees commitment and rigorous standards as the school's strength. "They have outstanding leadership," says Bob Lewicki, alternative education program coordinator. "Carole is way modest. A lot of people have come and gone in those 20 years, but you can bank on their dedication."

Smith's love of working with

teenagers shows. She knows them all by name, and casually exchanges informed greetings with them. Her office takes up the mansion's parlor. There are no doors.

When asked questions about the academic approach or research used in dealing with at-risk youth, her answers are simple.

"We build assets in kids," she says, listing things like integrity, caring, decisionmaking, and resistance skills. "They need them to succeed."

With a big smile Smith adds, "I *like* what we do. We are continually touched and awed by our kids. It's a genuine respect."

Shannon Priem is an education writer from Salem. She also works as the public information specialist for the Oregon School Boards Association.

"Employers look for work experience, and I'm learning all kinds of stuff ... like keeping records and things."

Joel

MERIDIAN ACADEMY
WHERE KIDS ARE VISIBLE AND VALUABLE

By Lee Sherman

Photos by Chuck Sheer

MERIDIAN, Idaho— When science teacher Larry Ford got the phone call about a job opening at Meridian Academy alternative high school, "right away the red flags went up," he recalls.

He pictured "kids with chains, motorcycles, Hell's Angels." The Hollywood-inspired images of knife-wielding hoodlums troubled the bookish teacher, whose last job was in Scottsdale, an affluent Arizona suburb where "Mama is a brain surgeon, Daddy's a corporate lawyer" and Junior is headed to Stanford or Harvard.

"I am not streetwise," Ford confesses, recalling the trepidation he felt at confronting a classroom full of at-risk students. "I thought, 'Those kids'll eat me up.'"

A single day at the academy vanquished Ford's misconceptions. The students he found at Meridian were familiar to him—not from movies and TV, but from big, traditional high schools. They are the "church-mouse quiet" kids who sit at the rear of packed classrooms, unnoticed. Sometimes they sleep at their desk. Often they're absent. They fall farther and farther behind while their teachers, unaware of their troubles, are "going 100 miles an hour" through the mandated

curriculum.

"I was looking at those little faces," Ford says, "and I recognized them immediately. I thought, 'I know you. You're the kids that weren't getting the attention.' All of a sudden, I realized these were good kids—these were *good* kids. It was the exact opposite of that image I had in my mind."

Ford's term for such a student is "the invisible child." Over and over, Meridian Academy students tell about feeling overlooked, anonymous, and unimportant at the big high schools, which typically serve hundreds or even thousands of youths. "Lost in the shuffle" is how they often describe their experience.

To these kids, the 150-student alternative school is a last chance, a final opportunity to earn a diploma. Their school is set among industrial parks and horse pastures in this fast-growing farming-town-turned-bedroom-community near Boise. Meridian Academy offers a chance at success for youths who've dropped out or nearly dropped out, who lag far behind their classmates in credits and grades, who have children or babies on the way, who have drug or drinking problems, who act out or break the law, and youths who've left home to live on their own.

"Every student has a different reason why they're here," says history teacher Bob Taylor, a founding staff member at the eight-year-old school. "Lack of intelligence, however, is not a reason—not ever."

In a decade of dealing with at-risk youth, Taylor has never found an incapable learner. What he has found in abundance are what he calls "discouraged learners." Among the discouraged learners attending Meridian Academy are:

• Amanda, an 18-year-old married mother whose year-old baby, Hailey, stays in Meridian's onsite day-care center while Amanda attends classes. After dropping out to have her baby, Amanda decided to return to school for her diploma. "I don't want to be a stupid mom," Amanda told a group of visiting educators recently. "I don't want my daughter to come home and ask me a question, and I don't know the answer." She says the "one-on-one" at Meridian has made the biggest difference in her school life. "It's the best school I've gone to," she says. "Everybody is really focused on goals, not just getting by. And they're really understanding with teen moms."

• Sean (a pseudonym), whose dad died after accidentally shooting himself while the boy, then 11, was in the next room. "It was a really grueling sight for an 11-year-old to see—for *anybody* to see," Sean says. After getting heavily involved in drugs and finally dropping out of school ("I absolutely, positively hated Middleton High School"), Sean found his way to Meridian. "All the teachers really care about you. I've heard five times I've been talked about in staff meetings." Now a 4.0 student, Sean aspires to a career as a police officer.

• Anna, a 16-year-old who is repeating her freshman year after failing at the big high school. "There were too many kids there," she says. "I sat in the back and raised my hand, but I never got any help. I went home crying every day. Here, everyone is very accepting. I know now that I'm going to graduate." She wants to attend college and become a counselor at an alternative school—a goal that would have been unthinkable before Meridian. "I always had really bad grades, and I thought no college would accept me. Now I have all As."

Students and faculty agree that the school's small size is its biggest strength. With only 15 kids in the average class, teachers greet each student as he or she comes through the door. When problems at home or in school are evident in a student's face or demeanor, the teacher pulls the child aside and offers help.

For example, one recent Tuesday a boy came to school angry and agitated. His first-period teacher directed him to the counselor, who mediated a two-hour discussion between the student and his parents about a family problem that had upset the boy.

Later that day, Taylor—one of two teachers assigned to afternoon parking-lot duty, where they bid farewell to students each day—gently consoled a girl who was crying and threatening to drop out over an incident involving some other students. Telling her "how bad the staff would feel" if she didn't come back, Taylor advised her to seek out the school counselor and confer with the principal to solve the problem in a more positive way.

"I just wanted to let her know we were there and we cared," Taylor said afterward.

The Number One reason students give for liking Meridian Academy is just that: Teachers care.

"All the teachers were glad to have me," says John, who came to Meridian after dropping out of the local high school midway through his sophomore year. "They make you feel like you're important—you, as a person. It blew my mind. I loved it from the first day. Everybody is really welcoming."

Greeting students at the classroom door "every single day" is a schoolwide strategy the staff uses to connect with students, Taylor says. Engaging each student in class each day is another way teachers make kids feel visible and valuable. First names are used exclusively at Meridian, where the signs outside the modular classrooms read ROOM 5—BOB, or ROOM 12—LARRY.

Friday afternoons, teachers and students meet for "family group"—one teacher to 10 or 12 students—where problems are aired, support is given, and bonds are forged. After collecting their diplomas at the yearly commencement ceremony, graduating seniors get an embrace from each of their teachers in the "hug line."

The family feeling that flows from this culture of caring helps fill the biggest gap in many at-risk

BOB TAYLOR: "UNEDUCABLE" TEACHER

It was the magic of the municipal airport—the roar of planes taking off, the whir of propellers, the romance of crop dusters swooping low over wheat fields and nut trees—that lured Bob Taylor away from the classroom.

His dad owned an airplane—a Stinson "Stationwagon"—and Taylor started haunting the hangars and runways in his hometown of Modesto, California, when he was only 11. By the time he was a sophomore, a part-time gig washing planes had turned into a full-time job servicing crop dusters.

He and his teachers were at odds. "I would come to school dripping with chemicals and sulfur," he remembers. "They didn't like me, and I didn't like them. My interests did not lie in school."

After the school ousted him ("Their exact words were, 'You're uneducable,'" he recalls), he became an aircraft mechanic and joined the Air Force, where he spent 27 years as a supervisor at bases all over the world. But he always regretted not having his diploma. After a short stint as a trainer in the Saudi Arabian air force, he returned to the states and, at age 43, graduated from high school. A bachelor's degree from Boise State University followed. In 1984, the school dropout became a teacher.

He "jumped at the opportunity" to help start Meridian Academy eight years ago.

"The dropout kids need a lot more help (than other kids), and it just isn't there for them," says Taylor, now 67. "We don't have it in the big schools. Families don't know what to do. Court systems are swamped. TV and drugs get more pervasive."

Taylor once conducted an informal survey of 25 Meridian students. He asked them two questions: What's the worst thing that ever happened to you? And, what's the best thing that ever happened to you? Nineteen students—76 percent—had the same answer for Question 1: "My parents' divorce." Twenty-five students—100 percent—had the same answer for Question 2: "Coming to this school."

"There is a family atmosphere in this school," Taylor says. "I think that is a key to success with these kids. I look every kid in the eye every day when they come through the door. If they're not feeling well, I know it."

Taylor has visited alternative schools and talked to at-risk kids all over the West. Everywhere, he says, these students will give you the same answer for why they are successful in an alternative school: "The teachers care for me. They understand what my problem is. They work with me to get the job done."

Schools like Meridian Academy are in far greater demand than supply, Taylor says. A second alternative high school and an alternative middle school that recently opened in the Boise area filled up immediately. All the schools have waiting lists.

"We're just hitting the tip of the iceberg on the kids who need help," Taylor says. "The whole educational system in America has to change."

—Lee Sherman

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students' lives: a stable and nurturing home life. The lack of family structure, in fact, is the "common denominator" for Meridian students, according to Principal Marilyn Reynolds.

"I like the family environment," says Ethan, who has kicked a drug habit to become an honor student at Meridian. "The boss over here (he points to Reynolds)—she's like our mom."

TEACHING STRATEGIES

The basic curriculum at Meridian Academy is nearly identical to the curriculum of other local schools. Textbooks are the same. Nothing is watered down.

But that's about where the similarities between Meridian and regular high schools stop. Drop in on any class, any time, and you'll observe students discussing a magazine article, rehearsing a play, building a science exhibit, cooking a meal. You'll see students working in groups, tutoring each other, conferring one-on-one with teachers, compiling portfolios of their best work. What you won't see are teachers lecturing at the front of the room while students listen passively.

"I have students get involved with what they're learning—build it or make it or do it—instead of reading it out of a book and answering the questions at the back," says PE and health teacher Audra Urie. "They all have different learning styles, and I teach to all of them—the verbal learners, the hands-on learners, the auditory learners, the visual learners. I want my kids to be physical and talk and communicate."

Caring for "simulator babies" around the clock was one recent activity for Urie's health and adult-living classes. In the "Baby Think It Over" program, students sample parenthood with computerized dolls that act like real babies, right down to the 2 a.m. feeding. Both boys and girls tote car seats, diaper bags, and blanketed "babies" around school and at home, keeping diaries about their experience and engaging in class discussions about issues such as child abuse and neglect.

In Greenbelt Guides, a class developed by Taylor, Meridian Academy students teach lessons in botany, biology, ecology, and geology to local fourth-graders. The older students lead the younger ones on an exploration of the 90-acre Boise River greenbelt, which includes a wildlife preserve and 15 miles of paved paths.

The 16 lessons unlock the secrets of local flora and fauna such as willow, cottonwood, blue heron, and beaver. They recreate the geologic history of nearby Boise Range. They reveal the principles of the food chain. They discuss human impact, both positive and negative, on the land and on the water. They weave local lore and history throughout the curriculum. Community collaborators on the class include the Boise Historical Museum, the Basque Center, and the Idaho Department of Fish and Game.

Science Circus is another Meridian program that brings together Meridian students with elementary kids for mutual enrichment. In this project, funded by a $15,000 grant from US West, the high schoolers once again serve as mentors and teachers when they research, build, and write science demonstrations for younger students. They prepare packets for elementary teachers and suggest follow-up activities to extend the lessons, which travel to area elementary schools.

The one place where Meridian's curriculum veers from the mainstream is the added requirement for a career awareness class called Work Orientation—a place where students can begin linking their learning to life beyond the campus. The class, which offers a job shadowing experience and guest speakers from the community, focuses on topics such as interview skills and resume-writing strategies, and helps students assess their job-related abilities and interests.

One policy cuts across all subject areas: no homework. A big reason at-risk kids so often fall behind in regular schools, according to Meridian staff, is that they rarely complete their homework. Many come from homes of poor or modest means, and they need to hold after-school jobs. Some have babies or toddlers who need their attention. Others attend trade school or vocational classes at night. And many come from homes that are chaotic, violent, or abusive. Concentrating on the French Revolution or the conjugation of Spanish verbs in the midst of family turmoil is tough for even the most well-intentioned student.

To compensate for the lack of homework, class time is extended to an hour and seven minutes. Friday afternoons are dedicated to finishing or making up work. Kids who've completed all their assignments can leave early—a powerful incentive for students to stay on top of their schoolwork. Three Saturdays each quarter, teachers are available to help students catch up on missed work.

Teacher expectations for Meridian students are not just high—they're huge. Students must achieve at least a 70 percent record in each class, or keep working until they do. While nearly a quarter of Meridian students who start each fall leave by spring, the 75-percent retention rate is remarkable for a population that had been 100 percent on track for dropping out, Reynolds notes.

Says Taylor: "I guarantee you, when you set high expectations, the kids will rise to meet them."

DISCIPLINE

At Meridian Academy, the teachers' caring attitude attends to students' hearts. Hands-on, student-centered teaching attends to students' minds. A third key element of the Meridian mix—clear, consistent discipline—attends to students' behavior. For kids whose home lives typically lack order and structure, and whose school careers often are

blotted by tardiness, truancy, and other troubles, unequivocal discipline is mandatory, says Meridian's principal.

"These kids have proven that they don't do well without a lot of structure," Reynolds says. "Part of love is discipline. Good parents administer discipline; there are clear expectations, and the consequences are administered fairly. That's what we do here. I think that's partly why we become the family."

As chief disciplinarian, Reynolds' tasks include signing forms from

the state verifying that students are enrolled and therefore can qualify for a driver's license (in Idaho, dropouts lose their licenses). She writes notes to probation officers vouching for young violators' regular attendance and good citizenship in school. And she handles referrals from teachers—lots of them.

Just after spring break, she shuffles through a backlog of warnings and referrals, most of them fairly mild in nature.

"Oh, my gosh," Reynolds exclaims as she looks through the stack of green slips. "Calvin (a pseudonym) has a discipline referral for using the F-word."

"I want to hear about this, young man," she says when Calvin is seated in her office. "How did that happen?"

"Honestly, I can't tell you how that word came out," he says, sounding genuinely mystified.

She looks through Calvin's file, going over his past offenses—kissing another student on campus, throwing a hair tie during an assembly, rough-housing, being late, slipping off-task in computer lab. He agrees to watch his language and actions more closely in the future.

The parade of errant students to the principal's office continues. Several students are in a precarious spot. With two discipline referrals for the semester, they are just one referral from being sent back to their home high school—a terrifying fate for many Meridian kids.

"To even hint that you might send them back to that other environment, they just go nuts," says Ford. "It's just like saying, 'We're going to cast you off into hell.' They've experienced terrible failure there. Who among us wants to go back and be a loser again?"

As difficult as it is to send kids away, Reynolds is comforted by knowing that all students are well versed in the Student Behavior Policy—a terse, two-page document which they must read and sign when they are admitted and each semester thereafter. Because students sit on the policy committee and have a hand in shaping it, they regard it with a sense of ownership. When they don't like the policy, they have an avenue for protest. Most importantly, Reynolds says, they know that discipline at Meridian is even-handed, never arbitrary.

"Sometimes I'm in tears, and they're in tears," she says. "But they hug me and they understand, because it is consistent, and they know the rules."

After three referrals (or two from the same teacher), students are sent to Student Court. In this most unusual court, teachers, counselors, and principal serve simultaneously as witnesses, jurors, advocates, prosecutors, and judges. They present evidence of the student's misdeeds, but only after describing the student's positive traits, abilities, and accomplishments.

The student and his or her parents get a full voice in the proceedings—a chance to explain circumstances that led to the rule violations and to make assurances for better performance in the future. In the end, the student and parents leave the room, and staff members vote to keep or dismiss the youth.

"It was done with love," says Debra Woods, a mother whose tardiness-prone son Donald recently avoided going back to his old school when the Student Court voted to give him another chance to get to class on time.

Straight-A student Ashley (a pseudonym) wound up in Student Court recently after missing 14 days of school—many of them

171

without the required note from a doctor's office or courthouse explaining the absence. One by one, the staff talked about Ashley's outstanding scholarship and their puzzlement over her absences.

"I see in you a wonderful, bright, articulate student who can do anything," said English teacher Tina Roehr. "When a teacher gets a student like that, she says, 'Thank you, God.' I want you to graduate more than anything in the world. I want to know what we can do to keep you."

Tearfully, Ashley admitted to suffering from family- and school-related stress and frequent bouts of depression. She said she would seek a doctor's prescription for an anti-depressant medication that had helped her battle depression in the past. She asked them not to send her back to her old school, which she disliked because "it was big and impersonal."

"It was like I was a number instead of a student," she said.

After she left the room with her dad, staff members quickly cast their votes on pink slips, which they folded and passed to Reynolds.

"You bunch of wimps," she said, jokingly.

The staff had voted to give Ashley one more chance to stay at Meridian Academy. As part of the contract she would sign, she would agree to check in with the school counselor weekly and to stay on her medication.

BODY LANGUAGE

When administrators from other Boise-area schools visit Meridian Academy, they often are floored by the change they see in students who once were sullen or surly.

"They can't believe the demeanor of the kids," Reynolds says. "Their body language has changed. Their whole persona is different. There's a different aura around them."

It's the aura of success, says Larry Ford. "Physically, you can read their body language when they come in," he says. "Their shoulders are rolled. They will not look me in the eye. Their heads are down, and they mumble. They're belligerent. They've been beat up and picked on by teachers, adults at home, other students. You'll hear 'em say, 'I'm a loser. I'm dumb. I'm stupid.'"

He tells a story of an 18-year-old boy standing at his desk after class, crying. When Ford asked him what was wrong, the boy held up an assignment that had just been returned. It was marked with a B. He said: "I've always gotten Ds or Fs. This is the first B I've ever had."

Says Ford: "They start to experience success. It only takes a few weeks, and you notice they raise their head up. Next, they start looking you in the eye, and their shoulders are back. Pretty soon, they start thinking about vocational school or technical school or college—the last thing they ever thought about in their lives." ■

Resolutions

- To get at least a 3.0 for my GPA
- To give more respect to my family
- To cut down on smoking
- To stay out of trouble with the police
- To be kind to more people

—Meridian Academy student

Resolutions

- Graduate next year
- Go to college
- Get my truck paid off
- Grow beards a lot
- Get a band going

—Meridian Academy student

Resolutions

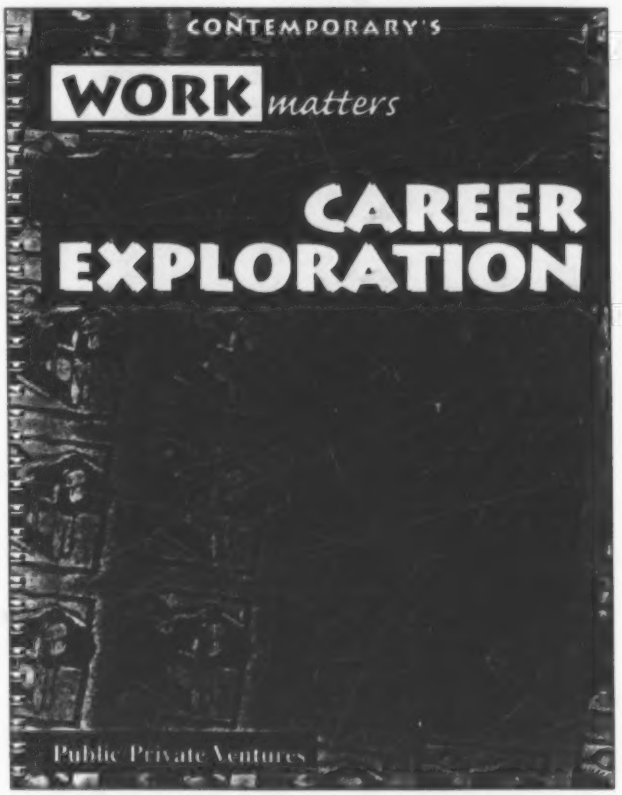
- Have no chemical dependency
- Hopefully not sick
- Get a good paying job
- Get a new car
- Have fun as a senior

—Meridian Academy student

A UNIQUE SERIES OF TEACHER RESOURCES AND STUDENT LESSONS. *WorkMatters* is a practical, activity-driven curriculum designed to help students develop the skills, habits, and self-awareness required to succeed in the workplace.

Appropriate for students in grades eight through 12, the curriculum includes five units:

1. Personal Resources—Students examine their own values and skills and set short- and long-term goals for meeting challenges. The unit includes strategies for achieving goals as well as lessons on job satisfaction, transferable skills, problem solving, and time management.
2. Human Relations on the Job—Strategies for building positive work relationships are emphasized in this unit, which includes lessons on workplace culture, employer expectations, dealing with conflict, and getting ahead on the job.
3. Career Explorations—This unit takes students through a career exploration process to increase their awareness of available jobs and careers. Lessons on work values, job interrelatedness, and self-employment are included, and students also learn how to access job-related community resources and agencies.
4. Workplace Skills—Student teams apply skills in the context of workplace situations to help them see connections between what they learn in school and the skills they need for work. The unit includes lessons on communications skills, applying math skills at work, following and giving instructions, and budgeting for a small business.
5. Job Search—From resume to interview, students go through the process of a job search to examine the purpose of each step and develop strategies for conquering it. Students also role play as employers to learn how hiring decisions are made.



Course content in *WorkMatters* is delivered through modeling, guided practice and student discovery, and activities for individuals and small groups. Students maintain portfolios in each unit and are actively involved in their learning by making presentations, reading and writing, and working collaboratively.

Units can be ordered individually or as a complete set. The set includes five teacher resource books, step-by-step lesson plans for 60 complete lessons (each unit contains 12 lessons), and assessments for each unit.

NWREL, which had a major role in developing *WorkMatters*, provides interactive teacher training in using the curriculum. For more information, contact Andrea Baker at 1-800-547-6339 ext. 595 or e-mail bakera@nwrel.org.

WorkMatters is a product of Public/Private Ventures, a national, nonprofit organization that promotes successful youth development by removing barriers that prevent kids from progressing through school and into responsible adulthood. For more information on P/PV, call (215) 557-4400 or check out their Web site at http://tap.epn.org/ppv/.

For pricing information or to order *WorkMatters*, contact Contemporary Books by phone: 1-800-323-4900, fax: 1-800-998-3103, or write: Contemporary Books, Inc., 4255 West Touhy Avenue, Lincolnwood, Illinois 60646-1975.

DESIGNED TO GUIDE EDUCATORS IN DEVELOPING EFFECTIVE PROGRAMS FOR AT-RISK STUDENTS. *Hope at Last for At-Risk Youth* provides practical information and step-by-step descriptions of programs that work.

Northwest authors Robert Barr and William Parrett debunk some of the myths surrounding what works in serving at-risk youth, identify factors that place a student at risk, synthesize what is known about students at risk, and describe essential characteristics of effective programs, ranging from kindergarten through high school.

Innovative ideas for restructuring and improving public schools to better serve all students are also provided. The authors advocate eliminating programs and practices that discriminate against at-risk youth, and redesigning the traditional teaching and learning approach that has been long used in public education.

"To be successful with all children and youth demands that schools must start as early as possible, work extensively with parents and the larger community, provide long-term comprehensive support, and significantly change the teaching and learning process that has been used in public schools," stress the authors.

From directories and newsletters to organizations and funding sources, the final chapter provides an encyclopedic list of resources dedicated to improving schools and the lives of youth. The chapter also contains an updated bibliography of research on critical issues, schoolwide approaches and interventions, and classroom strategies.

Finally, to determine the extent to which your school is addressing the needs of at-risk youth, self-evaluation checklists are provided in the book's appendix. Topics for evaluation include shared vision and goals, parent involvement, early childhood and preschool programs, curriculum and instruction, and social services.

Hope at Last for At-Risk Youth

was published in 1995 by Allyn & Bacon publishers, a Simon and Schuster company.

IN *EDUCATING AT-RISK YOUTH: PRACTICAL TIPS FOR TEACHERS*, author Andrea Baker synthesizes the practices of teachers in the Northwest and throughout the country who are successfully motivating discouraged, disengaged youth by creating a learning environment that makes them want to return to the classroom each day instead of giving up.

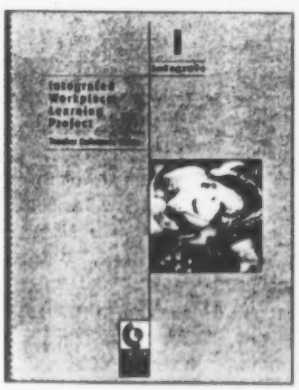
Organized into five areas—curriculum, methodology, counseling and advocacy, community partnerships, and transitions—the guide includes "essential ingredients" for each area as well as recommendations from practitioners.

The essential ingredients for curriculum, for example, are:

- Make the curriculum useful and meaningful for the students today as well as in their futures.
- Structure academic success for all students and use their success to address positive attitudes and self-esteem.
- Communicate clear learning goals that are challenging and reachable for all students and frequently encourage students to articulate and apply the goals to their own lives.
- Within any subject area, teach reasoning, communication, and life survival, as well as work attitudes and habits.
- Make it experiential whenever possible (for example, provide opportunities for community service, individual or group projects, and internships).
- Adapt the curriculum materials so they speak directly to the needs of the students. Don't rely on educational materials you have been given; improvise and scrounge when necessary.

The 33-page guide is full of ideas contributed by teachers who are successfully redefining the roles they play in their students' lives. Instead of addressing major policy issues and roadblocks to effective teaching that often sidetrack teachers, Baker focuses on what a lone classroom teacher can do without additional resources or training.

To order single copies of the guide, send $10.60 to NWREL Document Reproduction Service, 101 S.W. Main Street, Suite 500, Portland, Oregon 97204. The guide is also available through ERIC Document Reproduction Service (Document Number: ED 319 875).



FOR TEACHERS WHO BELIEVE THAT A SOLID EDUCATIONAL FOUNDATION INTEGRATES ACADEMIC, CAREER DEVELOPMENT, AND LIFE SURVIVAL SKILLS, NWREL's Education and Work Program has developed *Connections*, a comprehensive set of products and services designed to link work and learning.

"The Integrated Workplace Learning Project," one available product, helps teachers structure and document what students learn outside the classroom, connect it to academic coursework, and determine guidelines for earning credit. In "Survival Skills: A Guide to Making It on Your Own," students learn real-life skills such as registering to vote and applying for a loan, and experts from the community "certify" students as competent in each skill. Strategies for recruiting community experts are included. "Learning in the Community: From A to Z," suggests more ways that students of all ages can learn using nontraditional resources in the local community.

Other offerings for teachers include an employer recruitment and orientation guide and a learning site analysis form. Career exploration and job shadow guides are also available for both staff and students.

For more information about *Connections*, contact Andrea Baker at 1-800-547-6339 ext. 595 or e-mail bakera@nwrel.org. The products can be ordered through NWREL's Document Reproduction Service, 101 S.W. Main Street, Suite 500, Portland, Oregon 97204.

TWO OTHER RECENT BOOKS PROVIDE IN-DEPTH INFORMATION ON ALTERNATIVE SCHOOLS AND AT-RISK YOUTH.

John Kellmayer's *How to Establish an Alternative School*, published in 1995 by Corwin Press, addresses concerns such as curriculum options, the importance of school site, and the political realities surrounding start-up programs. Kellmayer, who has years of administrative experience at several alternative schools, also discusses what he considers the 10 key characteristics of effective alternative programs.

At-Risk Youth: Theory, Practice, Reform is a collection of articles by different authors on various facets of at-risk youth. Edited by Robert Kronick, the articles are organized topically and fall under one of the following headings: social, political, and health aspects of at-risk youth; intriguing theories on at-risk youth; students and mothers speak out in their own voices; cultures and ethnic groups that are often ignored; and needed and necessary changes. *At-Risk Youth: Theory, Practice, Reform*, was published in 1997 by Garland Publishing.

THE SEPTEMBER 1994 ISSUE OF *EDUCATIONAL LEADERSHIP* on "The New Alternative Schools" may no longer be new, but it still serves as a source of innovative ideas for teachers working with at-risk populations.

From a conversation with a co-principal at a highly regarded public school often considered "alternative" to profiles of programs that are helping troubled teens, the issue is packed with information on classrooms that are making a difference. In addition to features on programs for at-risk students, charter schools and home schools are also discussed.

One article states that despite a lack of "institutional legitimacy," alternative schools can serve as models for any school that seeks innovative change.

Issues of *Educational Leadership* are available for $6 from the Association for Supervision and Curriculum Development, 1250 N. Pitt Street, Alexandria, Virginia 22314-1453. Phone orders to 1-800-933-2723, and refer to September 1994/Stock No. 1-94211.

—Samantha Morrisey

IT STARTED ON A FLIGHT FROM SEATTLE, WASHINGTON, TO VICTORIA, B.C., as a casual conversation between a counselor educator and a teacher educator, both assistant professors in the School of Education at Gonzaga University.

Soon, it had turned into a passionate dialogue about the similarities between teachers and counselors. We decided that we have much to learn from each other—that we can learn when to teach in counseling and when to counsel in teaching. We agreed that we could strengthen our positions by engaging in a united effort on the part of our kids. This also involves finding new ways of looking at children labeled "at-risk."

It became apparent that both teachers and counselors need to move away from a damage/pathological model to embrace a challenge model built on assets in the child, family, school, and community. About this time, I felt like I was struck by lightning when I read Bonnie Benard's most eloquent work on resiliency, *Fostering Resiliency in Kids: Protective Factors in the Family, School, and Community*. Benard's research documents Emmy Werner's landmark study on resiliency and clearly tells us what makes kids succeed.

My experience, expertise, and interest in counseling have taught me that one has to be flexible and continually look for ways to reach kids defined as "unreachable." We need to see all children as reachable, then find ways to reach them. However, the western education and mental health systems are based on a verbal-linguistic model, which assumes verbal ability and preference. I have long believed that art, music, and movement can be used to reach kids who are not verbal.

Often the children we work with were traumatized at an age when they were pre-verbal and may not have had words for their experiences. However, they may have stored this information as visual images, sounds, or movements and express the experience behaviorally, instead of verbally.

This, of course, fits in beautifully with Howard Gardner's concept of multiple intelligences. Gardner believes there are at least eight intelligences (verbal-linguistic, logical-mathematical, visual-spatial, musical-rhythmic, kinesthetic-movement, interpersonal, intrapersonal, and environmental).

We need to ask in what ways children are smart, not if they are smart. My experiences counseling children taught me that I need to get smarter. I can't change the past of the kids I work with, but I can affect what happens when I am with them. In that way, I can make a difference. If teachers and counselors and community workers all take the same approach, we can make a significant difference in what happens to our kids.

THE CASUAL CONVERSATION THAT STARTED 30,000 FEET IN SPACE, became a concept which became a dream which became a grant which led to research that helped us to develop a graduate program in education designed specifically for teachers who work with challenging kids. The program accommodates teachers who work full time and who balance many roles and responsibilities. Although called "Teaching At-risk Students," the program is focused on resiliency. Teachers can do a great deal to foster resiliency in their students and to change what happens in our schools.

Today's teachers face a variety of challenges in their classrooms for which they often have limited training and few resources. The dynamics in the classroom are intensified by individual issues each child brings to school. Family violence and child abuse, attention differences, emotional problems, and learning disabilities can greatly interfere with the student's academic and interpersonal performance.

Although teachers are not traditionally trained to deal with the affective needs of students, they are often the first ones a student turns to for help. This can be an overwhelming challenge for the teacher. In many cases, special services and resources are necessary, but there are certain communication and intervention skills a teacher can develop that will help her to communicate effectively with students and their parents, when necessary.

Gonzaga University offers a master's program, with concentration on teaching at-risk students. The program provides the theory, methodology, and resources necessary to support the classroom teacher and foster resiliency in children.

The nature of the program is theory to practice; the graduate students classroom becomes the research lab. The program is currently offered in the greater Spokane area and can be provided in any community in the northwestern United States, Hawaii, and Canada. The core courses include: Human Development and Learning, Teaching Strategies, Curriculum Development, Research and Statistics, and Educational Evaluation and Measurement. The concentration courses include: Teacher as Counselor, Risk and Protective Factors; School, Family, and Community; Issues in Multiculturalism; Intervention Skills in the Classroom; and Managing and Enhancing the Instructional Culture. Coursework encourages active student participation from teachers experienced in K-12 classrooms.

WE HEAR OF VIOLENCE IN SCHOOLS ACROSS OUR NATION ON A DAILY BASIS. Within the past 14 months, there have been four student shooting sprees and countless other acts of violence. Schools cannot avoid addressing these issues and universities must take an active role in preparing teachers to work with children at-risk. This graduate program focuses on what the teacher can do to strengthen and support today's youth.

Resource note: For additional reading on resiliency factors, see Bonnie Benard's *Fostering Resiliency in Kids: Protective Factors in the Family, School, and Community* (ERIC #ED 335 781); and *Overcoming the Odds* (ERIC #ED 344 979) by Emmy Werner and Ruth S. Smith.

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—Jerri Simms Shepard

NORTHWEST EDUCATION

Quarterly magazine of the
Northwest Regional Educational Laboratory

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This publication is based on work sponsored wholly or in part by the U.S. Department of Education under contract number RJ96006501. The content of this publication does not necessarily reflect the views of the department or any other agency of the U.S. government. This publication was not printed with government funds. Articles and information in this publication are in the public domain and may be reproduced and disseminated without permission. Please acknowledge NWREL as the source.

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